# THE BUILDER
## A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

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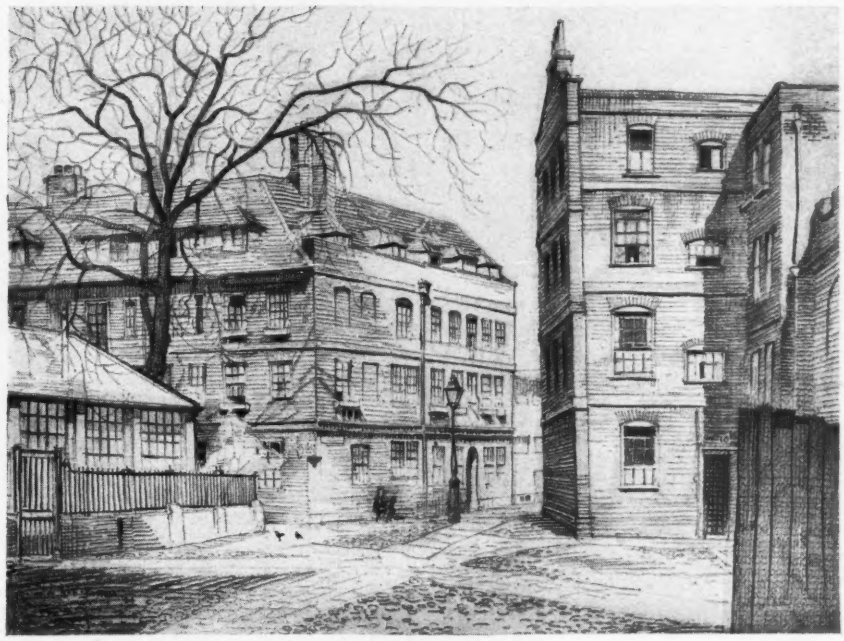


CLIFFORD'S INN.

From a drawing by MR. ARTHUR F. RUSSELL.

## MEETINGS

FRIDAY-MONDAY, *September* 21-24.

*Association of Special Libraries and Information Bureaux.* Eleventh Annual Conference. At Somerville College, Oxford.

TUESDAY, *September* 25.

*London Society.* Coach Drive to Stoke Poges Church and Churchyard. 2 p.m.

THURSDAY-SATURDAY, *September* 27-29.

*National Smoke Abatement Society.* Sixth Annual Conference. At Glasgow.

THURSDAY-WEDNESDAY, *September* 27-*October* 3.

*Garden Cities and Town Planning Association.* Study Tour to Holland.

MONDAY, *October* 1.

*Institute of Official Architects.* First Annual General Meeting. At Kingsway Hall, Kingsway, W.C.2. 7.30 p.m.

WEDNESDAY, *October* 3.

*Institution of Sanitary Engineers.* Opening Sessional Meeting. At Caxton House (Hill's Restaurant), Tothill-street, Westminster, S.W.1. 7.30 p.m.

WEDNESDAY-SATURDAY, *October* 3-13.

*Institute of Patentees.* Tenth International Exhibition of Inventions. At Central Hall, Westminster.

FRIDAY-SUNDAY, *October* 5-7.

*Town Planning Institute.* Sixteenth Annual Country Meeting. At Birmingham. Headquarters at Queen's Hotel. Friday: Meeting. Saturday: Twenty-first Anniversary Commemoration Dinner.

SATURDAY, *October* 6.

*Architectural Association.* Mr. G. A. Jellicoe on "Building England: The Countryside." 3 p.m.

FRIDAY AND SATURDAY, *October* 12 *and* 13.

*Royal Sanitary Institute.* Conference at Sunderland. Friday: Discussion on "Vermin and Slum Clearance," to be opened by Dr. A. Stuart Hebblethwaite, Medical Officer of Health; 5 p.m. Saturday: visits to various places of interest.

THURSDAY, *October* 18.

*Institution of Sanitary Engineers.* Mr. A. H. Waddington on "Some Studies on Water Purification." At Caxton Hall, S.W.1. 6 p.m.

FRIDAY, *October* 19.

*London Society.* Sir Henry Fowler on "Needless Noise." At 18, John-street, W.C.2. 5 p.m.

SATURDAY, *October* 20.

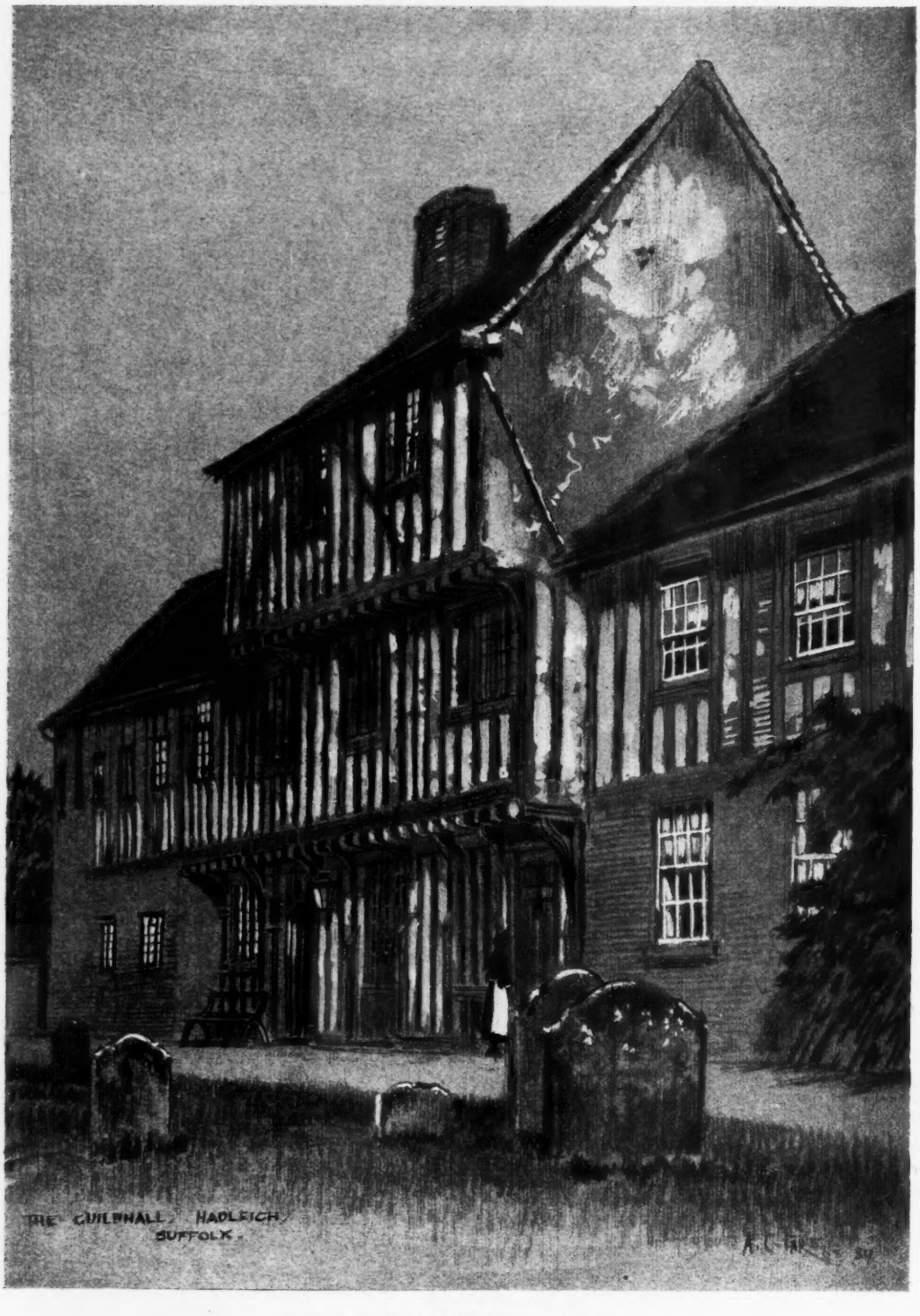
*Architectural Association.* Hon. Humphrey Pakington on "Building England: The Village." 3 p.m.

TUESDAY, *October* 30.

*Architectural Association.* Presidential Address by the Hon. Humphrey Pakington. 8 p.m.

THURSDAY-SATURDAY, *November* 29-*December* 1.

*Royal Institute of British Architects.* Centenary Exhibition. At Portland-place, W. Press View: Thursday, November 29. Private View and Official Opening Ceremony: Friday, November 30. Exhibition open to the public: Saturday, December 1.




THE GUILDHALL, HADLEIGH, SUFFOLK.

From a drawing by MR. A. C. FARE, R.W.A., A.R.I.B.A.

# BUILDING RESEARCH

THE important part now taken by scientific investigations in building undertakings and constructional problems is indicated in the latest of those valuable yearly reports which the Department of Scientific and Industrial Research issue recording the work of the Building Research Board at Garston, Watford. Apart from the general interest of the Report for the year 1933, a summary of which we give elsewhere, it is of special interest at the present time, since many of the investigations described are illustrated in the Building Research exhibit organised by the Department at the Building Trades Exhibition now being held at Olympia, and a visit to their exhibit is instructive in showing the value of science in building.

Notwithstanding the investigation which manufacturers of building materials carry out independently, the research work at Garston under the Director of Building Research, Dr. R. E. Stradling, is of considerable use to the industry, as can be realised in some measure from the fact that during the year over 1,500 inquiries and special investigations have been dealt with, and of this total, 83 were from Government Departments, 92 from local authorities, 497 from architects and professional consultants, 422 from manufacturers and merchants, 230 from builders and contractors, 122 from private individuals and 71 from professional or industrial institutions. With an extended knowledge of the nature of the work and the facilities for testing at the Station, we have no doubt increasing use will be made by the industry of the investigations which are undertaken. As the Report states, the activities of the Station are becoming more and more known and the facilities offered are coming into regular demand, while there is evidence that the general research work is now steadily advancing to a stage when there will be a definite basis for the utilisation of building materials and methods of construction. The use that is made by the industry of the results of this research work is capable of very great extension with an increased knowledge of its availability. Although many industrial and manufacturing undertakings carry out their own research work, the figures we have quoted show that good use is made by manufacturers of the Station, but that architects and professional men and builders doing so appear to be comparatively few. This is not, we fear, because they do not need the knowledge available, for the need is real and the successful execution of a job is often retarded by the absence of accessible or easily acquired information. The want of knowledge of the proper utilisation of materials and of the remedy to be adopted in the case of defects which are discovered in materials or workmanship is a source of great trouble to many men engaged in building. Our own Inquiry Bureau affords ample evidence of the need of this information, and we are glad to know that it has been of considerable service to our readers, but an organisation such as the Research Board at Garston is necessary for the supply of much of the information required, and a perusal of any of the Annual Reports so far published, and especially the Report for 1933, shows the extent and usefulness of the work undertaken.

The methods adopted to make known the results of the work of the Station are mentioned in the Report, which include the issue to the Press of the notes from the Information Bureau which we publish each month. But useful as this is, something more is required if we desire the best results in building undertakings. It is in the direction of education that we must look for the fullest use of the Station and the application of science to building. Here, again, the Research Board have been at work, for refresher courses for architects have provided an insight into the laboratory methods used for studying the properties of materials and guidance as to interpretation of the results in building practice. Members of the staff also give lectures to students attending the post-graduate course in building science at the Imperial College of Science and Technology. As the fullest use of the knowledge already available is not possible without this instruction, we hope there will be a development along these lines, at all events in the big cities of the country. As Sir Raymond Unwin, Chairman of the Research Board, says in the Report of the Board, "we believe that in the advance of building science and the spread of knowledge through education, the industry is being encouraged to adapt its methods and practice to the increasing demands of modern civilisation. The extending co-operation of the Station with manufacturers and users of materials and with the architects, designers and the builders, is a happy augury for the future."

The Report before us reviews in detail the work in progress at the Station on the weathering of building stones and building materials of all kinds; the structure and strength of these materials; the efficiency of buildings from the point of view of the user and information as to minor investigations which are considered in the monthly reports which the Board issue and which are published in our columns. Reference is made to several matters of interest to which attention has been given during the year. Proposals are now well advanced, with the support of the Institution of Heating and Ventilating Engineers, for the construction at the Station of the "controlled weather house" for research into heating and ventilating problems. Two new items of co-operative research were initiated during the year, *i.e.*, into certain problems of concrete and reinforced concrete (in conjunction with the Reinforced Concrete Association, Ltd.) and into the use of mastic asphalt in building work (in collaboration with the Natural Asphalte Mine-owners' and Manufacturers Council). The Board are making every effort, with the Fire Officers' Committee, to arrange for the adaptation of a suitable laboratory for adequate testing facilities for the fire-resistance of structural elements, and they have been exploring with the National Physical Laboratory the possibility of installing suitable accommodation for full-scale tests of sound transmission through the fabric of a building, floors, walls and partitions, and have endeavoured, at a conference with industrial interests, to see what assurance could be given that the proposed testing facilities would be used and that financial support would be forthcoming. Consideration is also being given to the need for a code of rules in the use of jointless flooring. In view of such activities and the record of accomplished work, we agree with the Report of the Board that the results can "be presented with some assurance that they will be assimilated and applied by those members of the industry directly concerned."

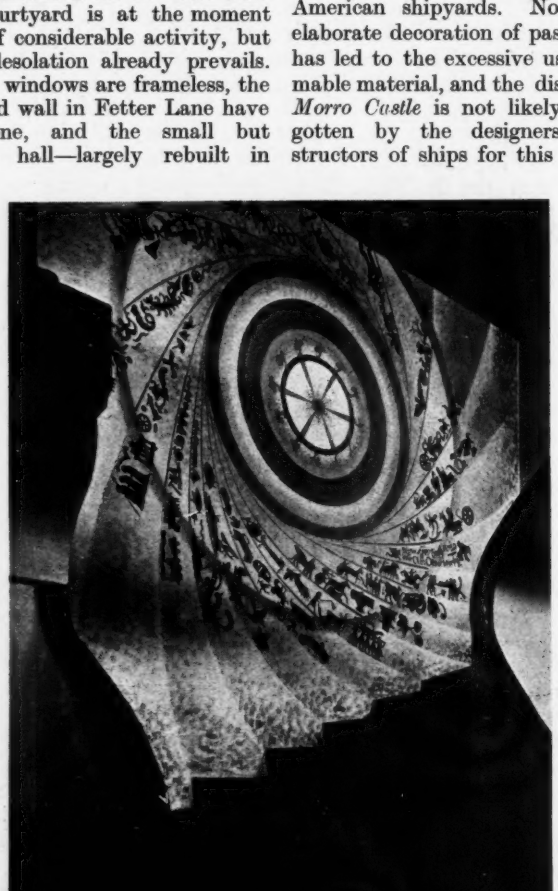
# NOTES

**Clifford's Inn.**

THE disappearance of Clifford's Inn is now almost an accomplished fact; within a few weeks the site will be clear. A certain sadness and regret will be felt by those who for many years have wandered through and lingered in this pleasant little old-world inn with its peace and serenity, hidden between busy thoroughfares. Its usefulness, we must suppose, has now passed away. It has had its day, and must make way for buildings with a new life and usefulness. Let us hope that the new building, about to be erected, will possess a charm for future generations and be a worthy successor to what it has superseded. The following notes are given by a correspondent in a letter to a contemporary: "Only a few days remain for those who wish to take final leave of this, the oldest and almost the last surviving Inn of Chancery. The passing of this fine group of seventeenth and eighteenth century buildings with their long and intimate connection with English legal history must be regretted by many, even more than the destruction of Waterloo Bridge, while there is surely far less justification for it. The once peaceful courtyard is at the moment the scene of considerable activity, but an air of desolation already prevails. Most of the windows are frameless, the gateway and wall in Fetter Lane have already gone, and the small but picturesque hall—largely rebuilt in 1767 as a tablet over its doorway records—has been stripped of most of its fittings. The simple and dignified ceiling, however, with its delicate moulded cornice is still intact, as is also the well-preserved late fourteenth-century doorway at the east end. London is now full of foreign visitors, and there are no doubt many who would wish to avail themselves of this last opportunity of seeing not the least of its architectural monuments, even though its own citizens for the most part pass by unheeding."

**Steel for Ships.**

IN the course of a luncheon given at the Building Trades Exhibition last week by the British Steelwork Association reference was made by Mr. Lorne to the desirability of more extended use of steel in ship construction, expecially passenger ships. Point, of course, was given to his remarks, which are reported on p. 501, by the disaster to the s.s. *Morro Castle*; and now it is reported that President Roosevelt expects that a definite effort will be made to pass legislation calling for the elimination of wood construction on all passenger vessels built in American shipyards. No doubt the elaborate decoration of passenger ships has led to the excessive use of inflammable material, and the disaster to the *Morro Castle* is not likely to be forgotten by the designers and constructors of ships for this country.



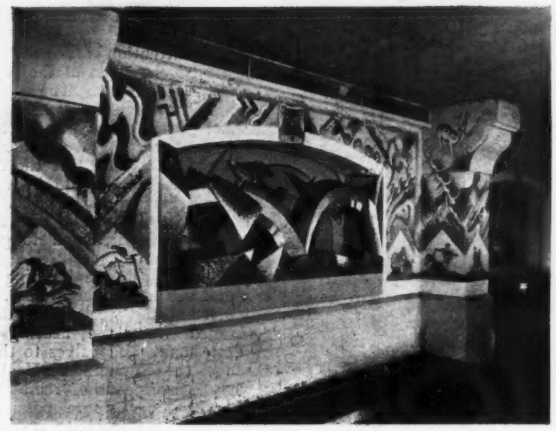
DECORATION ON STAIRCASE OF THE AERO CAFE, RAMSGATE.
By MR. HECTOR WHISTLER.

**Ribbon Development.**

MR. EWART G. CULPIN, Vice-Chairman of the L.C.C. and Chairman of the Greater London Regional Planning Committee, in a letter to *The Times* suggests that "it would be very much more economical for the nation, and far better for the countryside, if Road Board funds were devoted to the prevention of the necessity for by-passes, rather than paying out, say, 60 per cent. for a new thoroughfare which is so constructed, without restrictions as to development on its frontages, that in a comparatively short space of time it becomes so congested that the phrase 'by-passing the by-pass' has already come into current usage." He further suggests that it would be far cheaper, infinitely safer, and vastly more pleasant if the Road Fund were only used in those cases where the new streets were provided with some alternative to ribbon development. "One method which would add to the pleasantness of the countryside is the provision of a park strip along the roadside of such a width as may be determined by local circumstances, across which access should only be permitted at intervals of about a quarter of a mile. This would involve the provision of a subsidiary road (say, 200 ft. back from the main road), on which the houses, when built, should front. In cases where this, owing to depth of land, would not be possible, a service road of very modest width could be provided by the side of the arterial road for access to houses. This, of course, means the acquisition of further land and the making of further roads, but these may be to a very simple specification, and in most cases the money would be well spent."

**Right of Light Case at Gibraltar.**

IT is reported that the right of light action which was heard at Gibraltar during June this year has been concluded by an amicable settlement between the parties, whereby the plaintiff, Mr. W. J. Thomson, has paid the sum of £2,500 to Mr. S. L. Balensi, the defendant, subject to the latter undertaking not to obscure the prospect over the sea towards Algeciras during the plaintiff's lifetime. The case in question is believed to have been the first right of light action to be heard in Gibraltar. It came before the Chief Justice, His Honour Sir Kenneth J. Beattie, and a special jury in the Supreme Court. Evidence as to natural illumination was given by Mr. P. J. Waldram, F.S.I., on behalf of the plaintiff, and by Mr. John Swarbrick, F.R.I.B.A., on behalf of the defendant. The plaintiff applied for an injunction to restrain the defendant from erecting a proposed building, in accordance with a design prepared by his architect.



DECORATIONS IN THE AERO CAFÉ, RAMSGATE.

**Decorations at Ramsgate.**

THE wall paintings in the Aero Café at Ramsgate by Mr. Hector Whistler, which we illustrate this week, are of special interest at a time when so many young and competent artists are anxious to find scope for their abilities, and so many buildings are lacking in appropriate decorative embellishment. The paintings adorn a building by Augustus Welby Pugin (designed, presumably, as an assembly hall), and have been carried out inexpensively, the understanding having been that they need not "stand" more than a year or so. Instead, therefore, of making elaborate preparations with canvas panels to be painted in solid oils, the artist has worked directly on the wall surface—part brick, part plaster—in cheap distemper colours, having been paid a weekly wage during the period of the work, which was completed in a few weeks. The decorations, as will be seen, are of an amusing, light-hearted and sometimes fantastic character, mainly depicting something of the history of Ramsgate. The work is unconventionally imaginative in conception and free in execution, employing a full range of colours. Messrs. Tomson and Wotton, who commissioned Mr. Whistler to do this work, have indicated a way in which artistic talent might find increasing creative employment.

**Exhibition Stands.**

EXHIBITORS' stands at exhibitions are receiving more and more attention, and this is not surprising in view of the fact that an attractive and well-designed stand is generally, though certainly not always, the introduction which a buyer gets to goods which he ultimately buys. Some stands receive attention because of their eccentricity, others because of their suitability and appropriateness for the display of the goods exhibited, this suitability generally being based on good design. The Building Exhibition at Olympia contains a larger number of good and suitable stands than ever, as the examples we have published and which we publish this week show, and some of them are of interest in indicating the potentiality of the material used in the construction of the stand. The stand for the British Steelwork Association is a case in point, and as a stand designed (by Sir John Burnet, Tait & Lorne) to show the uses of steel in many forms and especially the potentialities of steel, it appears to be of sufficient interest to be re-erected in one of the centres of the rolled steel trades, such as Birmingham or Newcastle.

**"The Building-minded Public."**

GOOD reports of the amount of business done, and inquiries made, come from the Building Exhibition. An interesting feature of this year's show has been the appearance of a daily news-sheet, which is sponsored and distributed free by a firm of reinforced concrete engineers. While this sheet, "The Building Exhibition News," does not forget the lighter side of the show, there is much of serious interest. The following extract is taken from an article, "A Suggestion for Visitors," in the issue of September 19: "It is with pleasure that we note the presence at the Exhibition of what Sir Giles Scott has called 'the building-minded' public. To them we would like to say one thing: This 1934 Exhibition is the greatest and most complete display of building material, building plant and building fittings ever yet assembled under one roof. . . . There are many products here which can be incorporated in your home, your office, your works—products which make for greater economy and increased efficiency. . . . So look about you carefully as you make your round of the show; see what you need, and either book your order on the spot or make a note of the showrooms, so that you may return there at your leisure. Money expended in fittings and plant is the best of all ways of chasing away the last cobwebs of the depression—for money so expended remains in the country." Provided that the Exhibition remains, as it is, primarily a show for the technical man, this is a suggestion which, we feel sure, will be heartily endorsed by exhibitors.

**Architects' Benevolent Fund Raffle.**

OUR readers will remember the raffle which was a feature of the Building Trades' Exhibition held at Olympia two years ago, when pictures, books and *objets d'arts*, which had been given for the purpose, were raffled for on payment of an entrance fee, the proceeds from the sale of tickets being given to the Architects' Benevolent Fund. A similar raffle has been arranged in connection with the present exhibition, but more applications for tickets have been made than the prizes so far available, as the raffle provides that every purchaser of a ticket receives a prize. In these circumstances, an appeal is made for gifts of pictures, etc., and, as the object is a worthy one, it is hoped there will be a ready and immediate response, as the Exhibition will close next Wednesday. Pictures and objects should be sent to Mrs. Morgan, Exhibition Offices, Olympia.

DECORATIONS IN THE AERO CAFE, RAMSGATE.
By MR. HECTOR WHISTLER.

# GENERAL NEWS

### Professional Announcement.

Mr. Edwin Priestley, L.R.I.B.A., of 28, Rowland-avenue, Kenton, Harrow, has commenced in practice at Kenton and will be pleased to receive catalogues, etc. Mr. Priestley, we are informed, was chief architectural assistant with Messrs. Chas. Heathcote and Sons, FF.R.I.B.A., throughout the whole of the period of the construction of the Ford Motor Works at Dagenham, Essex.

### Lectures on Architecture.

A course of lectures on "How to Understand and Appreciate Architecture" will be given by Mr. P. M. Andrews, A.R.I.B.A., at the Paddington Literary Institute, 129, Elgin-avenue, W.9 (on Tuesday evenings, commencing September 25), and at Hammersmith Literary Evening Institute, 50, Brook-green, W.6 (on Monday evenings, commencing September 24). All lectures will commence at 7.30 p.m. The fee for the course, which lasts until July next, is 5s. for Paddington and 7s. 6d. for Hammersmith. The courses are intended for those who are anxious to gain an insight into a subject of rapidly increasing importance.

### A Design for Waterloo Bridge.

In connection with the accompanying illustration of a design by Sir Owen Williams for a new Waterloo Bridge, we have received the following :—Sir Owen Williams, in April, 1932, offered to demolish the existing Waterloo Bridge and to construct an entirely new bridge for the sum of £693,000, and in March of this year, when the question was reopened, he renewed this offer. Since that date the London County Council have decided to let a contract for demolishing the existing bridge, and automatically Sir Owen Williams's offer lapsed, as his proposal involved utilisation of the works of demolition for the purpose of building a new bridge. The Council having decided to demolish the existing bridge as a separate contract, the design and construction of the new bridge are left free from being influenced by the existing structure.

In view of this altered fact, on June 21 last Sir Owen Williams made an entirely new offer to build a new bridge after the present demolition operations have been completed, the new bridge to be as before, for six lines of traffic, but now to have only four cylindrical piers supporting it, instead of eight; giving three river spans with 245 ft. clearance between piers and two shore spans each with 190 ft. between piers. The four cylindrical piers supporting the bridge would be each 30 ft. diameter. The type of bridge would be absolutely horizontal on the underside, giving 25 ft. clear above high water for the full length and width of the bridge, which, in combination with the spans and cylindrical form of piers, would give the maximum possible river facilities.

Sir Owen Williams has offered to carry out a bridge on these lines for the sum of £535,000 in 2½ years. The accompanying perspective shows the type of bridge proposed. No decision on this offer has been reached by the London County Council.

# SWINTON AND PENDLEBURY COMPETITION

We illustrated in our last issue the winning design in this competition, by Messrs. Percy Thomas and Ernest Prestwich, FF.R.I.B.A. The following notes are from the architects' report on their design :—

After a careful study of the site and in view of the building line being set back 150 ft. from the main road, it was felt that the buildings should be kept parallel to the main Chorley-road. The municipal offices with the tower forming a central feature of the whole group of civic buildings, is placed centrally, with the public hall on the one side and the sessions court and library on the other. An architectural composition is thereby obtained, which will give a well balanced and dignified appearance from any point of view.

It is suggested that portion of the forecourt be laid out in broad open lawns with an inner carriageway giving access to the municipal offices, public hall and the sessions court. The lawns would be surrounded with granite kerbs with trees planted as shown on the block plan. The rear of the site would be laid out as a public park, the excavated portion being formed into an interesting sunken garden and the remainder as lawns and playing fields as desired.

Ample space is allowed for the future public hall, sessions court and library, and for such extension of the municipal offices as may be found necessary. It is suggested the road between the sessions court and library might have gates at each end and be used for prison van approach. The necessary privacy would thus be obtained. Parking space for 100 cars is provided at the rear of the municipal offices convenient of access from all the buildings and in particular for the public hall.

The planning of the municipal offices is simple, direct and economical. A certain amount of grandeur has been given to the staircase hall and landing with its barrel-vaulted ceiling richly coloured, the walls being kept plain. The remainder of the building, with the exception of the council suite, would be treated as an ordinary office building.

All offices and corridors are well lighted. In the basement and ground floor, where rooms are on both sides of a corridor, the space between head of door and ceiling would be glazed with clear plate glass. The first-floor corridor would be top lighted.

Direct access to the gallery of the council chamber is provided by a separate staircase approached from the main vestibule. The caretaker has his own external entrance with service staircase from basement to first floor. The caretaker's flat, with a southerly aspect, is arranged in the basement convenient to and near the kitchen and staff dining room. By forming a grass bank as shown on the sections, a pleasant outlook is obtained from the various rooms of the flat. Provision has been made in the basement for a cycle store for the use of the staff. The space in the tower would be conveniently utilised as store rooms, except for one room which would be reserved for the tank.

Special attention has been given to the acoustic requirements of the council chamber and committee rooms. The walls of the council chamber above the walnut dado would be finished with honey-colour acoustic tiles. Three-quarter inch "AcoustiKos" felt would be fixed in the coffers of the ceiling, and in addition the floor would be covered with a deep pile carpet and the council seats upholstered in tapestry. The absorbent surfaces would be arranged to give reverberation of 1.5 second.

The heating of the building would be on low-pressure hot water system, with electrically driven turbo accelerators, the whole being controlled from the heating chamber by separate mains and valves to the various sections of the buildings. Heating generally would be by means of radiators fitted with fresh air inlets where possible. An independent hot water boiler would be installed.

Normal brick construction would be used, with floors and roof of reinforced concrete, the whole resting on a reinforced raft. Brickwork would be reinforced with "Bricktor." Provision would be made for all girders and floors to act as ties on account of possible subsidence.

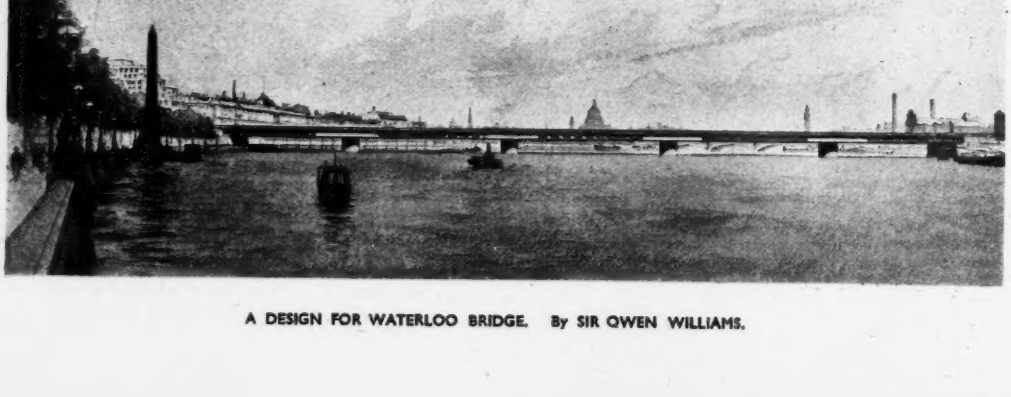
Externally the buildings would be faced with 2-in. silver-grey hand-made bricks, with hand-made red brick quoins. Joints would be ½-in. wide and light in colour. Stone base and dressings would be Portland.

The assessor, Mr. James R. Adamson, F.R.I.B.A., in the course of his report, states that he considers the following designs worthy of mention :—No. 32, Messrs. James F. Howes, A.R.I.B.A., and F. L. Jackman, A.R.I.B.A., London; No. 36, Messrs. L. Sturmer Jacobson, A.R.I.B.A., and John Alex. Caveson, London; No. 11, Messrs. Briggs and Thornely, Liverpool; No. 28, Messrs. Bain and Johnson, Leeds. The design placed first, he states, has a simple and convenient plan, well balanced and open in character, which lends itself readily to extension, and the external treatment of the building gives promise of dignity and suitability to its civic purpose. Some adjustments in detail may be worthy of consideration; for example, the caretaker's house might, perhaps, be placed in another position. The cubical contents of the building are stated in the report accompanying the design to be 705,151 cubic ft., which at the rate of 1s. 9d. per cubic ft. estimated by the competitor, with the addition of £2,000 for a concrete raft over the site, makes a total estimated cost of £63,700 14s. 3d.

# COMPETITION NEWS

### New School, Wyken, Coventry.

In connection with the proposed new school at Wyken, the Coventry Education Committee has decided to offer three premiums of £100, £50, and £30 respectively, in a limited competition for designs. The cost of the buildings is not to exceed £15,000, and the architect appointed will be paid an inclusive fee equal to five per cent. of the final approved account for the work. Mr. A. C. Bunch, F.R.I.B.A., county architect for Warwickshire, is assessor.



A DESIGN FOR WATERLOO BRIDGE. By SIR OWEN WILLIAMS.

# CORRESPONDENCE

**We print a further series of letters on the subject of a "Bureau of Building Statistics," discussed in our issue for September 7.**

## BUREAU OF BUILDING STATISTICS.

SIR,—Your admirable article of September 7 brings to the fore one of the major questions confronting the industry. Any expansion on the part of individual firms, any movement towards greater co-ordination, any endeavour to give more stable employment depends on our sources of information. If organisation is to be more effective the available data necessary for the framing of plans and the successful interpretation of current events must be improved and extended.

The statistics of the estimated cost of buildings, the plans of which were approved by local authorities, to which you refer, have recently been improved as a result of representations made by the Building Industries National Council, but, as you point out, are still extremely defective, particularly in that the London County Council area is omitted. The Census of Production is also defective and does not give current information. The only remaining official statistics indicating the fortunes of the industry are the unemployment figures.

One urgent necessity, which is also stressed in your article, is that the scope of the statistics of building plans approved should be widened, but there are other desirable amendments. In the first place, the value of buildings proposed by local authorities and other public authorities should be shown separately. Secondly, some physical measurement, cubic or super feet, should be given as well as values. Thirdly, why should not similar particulars be collected of the estimated cost of projected constructional works other than buildings?

A most desirable supplement to these figures would be statistics, for the same areas and categories, of the value of contracts let. A comparison of the two series, which have for years been available together in the United States, would give most valuable indications of the probable trend of activity in building and public works.

The fluctuations indicated by these statistics would, however, merely be fluctuations in the starting of projects. They would not show the actual volume of construction going on at any particular time. To measure constructional activity directly month by month would be impossible, but figures of orders or deliveries of the standard building materials would give a close approximation.

It is surely not necessary to ask how a Bureau collecting such statistics should be administered. To use your own phrase, it should be "an integral part of the organisation of the building industry." An appropriate parent body already exsits in the Building Industries National Council, and the formation of such a Bureau is a logical development of its present functions. Already it collects available information for the use of its members and answers a considerable number of statistical inquiries from concerns interested in building. The extension of this work would be of extremely great service, not only to the building and allied industries, but also to the community, particularly if it were enabled to collect information, such as that to which I have referred above, which has never before been available in this country.

A. D. S. RICE,
Treasurer, Special Committee for Public Relations, Building Industries' National Council.

Adelphi, W.C.2.

SIR,—In regard to your leading article in the issue of September 7 on "A Bureau of Building Statistics," I would say at once that information of a statistical nature presented in a convenient form dealing with the market for building materials would be helpful in planning for production and sales.

Whether or not a Department for Building Statistics should be a part of a Government body or the Building Industries National Council, it is not for me to say. The latter has, undoubtedly, done some very useful work and could, no doubt, take on the extra activity, but I would urge that no new organisation is set up specially for the purpose.

J. CRAVEN PRITCHARD.

Venesta, Ltd., E.C.4.

SIR,—There can be very little doubt that a Bureau of Building Statistics, as advocated in the leading article of *The Builder* of September 7, is essential as a factor in stabilising the work of the building industry. Some time ago such a suggestion would have been foredoomed, but there is greater hope of getting something done to-day, as there is an increasing trend of thought against *laissez faire* and in favour of using the facts of the present and past as a basis for planning orderly progress in the future.

It seems clear, also, that such a Bureau should be conceived on the lines indicated, for if the industry is to be able to support the schemes it proposes, it must do so upon the very latest and the very best statistics and records which are procurable, and much of the data necessary is to be found within the industry itself.

Certain particulars, as your correspondent "Interested in the Manufacture of Building Materials" states, must remain confidential, but there is a very great deal of information, regarded as confidential, which, if withheld in one quarter, is quite easily obtainable from other sources. Overcoming this quite natural reticence to parting with information which appears to place one individual in advance in knowledge of another, and collecting and sorting data and experimenting in the best form of record, must, if they are to be useful eventually, be unproductive, costly and slow in the initial stages.

Reference, for instance, has been made to the computing of values upon the basis of cubic footage. Everyone knows how misleading such a system can be when published particulars are utilised without reference to the details from which they were compiled. Investigations in this direction alone would lead, at the least, towards a more standard method of preparing such particulars, and it might result in devising a new system more accurate and reliable and involving very little more work than is the case in "cubic contents" basis.

If this proved to be the case, such a Bureau might not only prepare and distribute computations month by month of proposed works, but might also become partially self-supporting by offering to firms and individuals, at a small cost, a means of obtaining a much more comprehensive record of works than they could compile individually, tabulated on the latest system and constituting a much better basis than before for application to new schemes in contemplation.

ALAN W. DAVSON.

SIR,—On the subject of forward estimates for various classes of building work, we feel certain that some trades might welcome such information were it available, but in our trade customs differ throughout the country, and we doubt whether the information, if available, would be of material assistance in determining whether to work on stock or wait until definite orders come to hand. The immense assortment of articles which we manufacture, and the great variety of finishes and form in which each article can be prepared, make it practically impossible to work for stock in anticipation of demands. We rely upon the merchants who stock our manufacturers to anticipate public demand and prepare accordingly.

In the case of bricks, slates and many other articles where the maker supplies the builder direct, and where there is no great variety in size or finish, the information you suggest would no doubt be of great value. As you know, we specialise in appliances, the popularity of which is based on very low fuel consumption. Such appliances cost more than what might be termed "bread-and-butter lines"; consequently, such articles are not usually found in the houses that are put up in large numbers, but are rather selected for houses that are being built to order, the fittings for which are chosen individually after consultations between the architect and his client.

Our specialities for housing schemes are in a different category, but, as stated above, we rely upon the merchants to order for stock. In our factory, workmen are transferred from one department to another, according to demand in any particular department. Any rush of work in any particular department can thus be expeditiously dealt with.

SMITH AND WELLSTOOD, LTD.

London, E.C.4.

SIR,—I have read with interest your article on a suggested Bureau of Building Statistics in your issue of September 7, and the replies so far received in your issue of September 14. I am mainly in accord with the anonymous correspondent in your last issue, especially with his remarks in his first, fourth and fifth paragraphs. I feel that industry is called upon to bear so many burdens in respect of services which are no good to it, that it can no longer afford in these competitive days those many vital services which would be of infinite value.

As far as the joinery trade is concerned, an advance programme of work, even if accurate, would be of little or no value, fashions in joinery being so elastic—certain types of structures needing their own types of joinery—and having regard to the individual variance of taste.

Even in the slum clearance schemes an advance programme would be of little use to the joinery trade whilst the Committee considering windows is composed of one architect and two metal manufacturers. This, to say the least of it, is unfair and should be remedied forthwith. All trades should be represented on this important Committee, so that the views of all elements are voiced, and not only those of one section.

It has long been, or seems to have been, the generally adopted policy to make the interest of wood subservient to those of other trades, without even investigating the relative merits of the competitive products. In the circumstances, the joinery trade can hardly be expected to give its information or its money to the compilation of statistics most vitally needed by its competitors. JAMES AUSTIN.

East Ham, E.6.

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## Practical Help for Building and Decorating Trades.

We have received a letter from Sir Wyndham Deedes in which this correspondent states:—

"My experience as chairman of an employment committee leads me to believe that property owners and occupiers can do much to alleviate seasonal unemployment in the building and allied trades by putting in hand during the autumn and winter property repairs and decorations which they would normally carry out in the spring or summer. There are bound to be many items which call for treatment before the winter sets in. Roofs, gutters, windows, water cisterns, drains, decorations, etc., may benefit by an overhaul, and structural alterations and painting may be more conveniently carried out in the autumn than in the spring or summer.

"The undertaking of a large number of small jobs here and there would undoubtedly have a substantial cumulative effect in reducing unemployment."

# OUT-OF-DATE MODERN HOUSES

## THE NEED FOR BETTER EQUIPMENT

By L. H. S. EMERSON.

THAT great progress has been made during the past few years in practically every branch of building design and construction is apparent to all. But while architects and builders are to be congratulated on the advances made, there are still many points, especially as regards interior equipment, in which our modern houses not only are capable of improvement, but actually fall far short of the standards prevailing in other countries, including our own overseas possessions.

The reason for this is not far to seek. Unlike motor cars and other manufactured articles, buildings cannot be transported from their land of origin and so afford an opportunity to people in other countries to note for themselves, and, if desired, to adopt, any improvements made in them. Thus, advances in construction, especially as regards the smaller points, may well go for years unappreciated by people in other countries. Few of our architects and builders ever have the opportunity of visiting other continents, and the "grouses" of the travelled layman at our backwardness are usually confined to a small circle of acquaintances.

One of the chief complaints made about English houses by overseas visitors is their extreme coldness in winter. Proper central-heating apparatus as installed in houses in colder parts of the world is expensive and unnecessary, but even a single small radiator, run off the boiler with which most houses are now fitted, and placed in some central position, such as the hall or the landing, will keep the whole house surprisingly warm.

Keeping the house cool during the spells of hot weather is a more difficult problem, and is perhaps one to be dealt with by the tenant rather than the builder. In bungalows, however, the verandah should be a far more common feature than it is. Such protection against the climate has hitherto been almost entirely neglected, owing, no doubt, to the tradition that the climate of the British Isles is so free from extremes as to render such measures superfluous. On paper this may be so, but those who have had experience of tropic heat and arctic cold generally hold a very different opinion.

A visitor's first view of the interior of a house is usually the hall, and, unless there has been a hasty clearance before his arrival, it is rarely an impressive one. Generally it is reminiscent of a second-hand clothes shop, owing to the fact that few houses have any cupboard inside the front door for hats and coats. A roomy cupboard, or at least a well-concealed recess, capable of holding even a big family's outdoor apparel, is a standard feature in the great majority of American homes. It is one which costs little, and which adds greatly to the cleanliness and neatness of the hall.

Similarly, in bedrooms there should be ample built-in cupboard space to supplant the old-fashioned wardrobe, which, in addition to being expensive, is usually a dominant piece of furniture which detracts materially from the never ample size of our modern rooms. In the United States and Canada the wardrobe is now as obsolete as the hall-stand, and built-in cupboards contribute considerably to the attainment of the simplicity of interior design and furnishing sought after nowadays—an effect which may be furthered by the provision of single-panel, flush-fitting doors to such cupboards and to the rooms.

The artificial lighting is often confined to one lamp suspended from the centre of the ceiling. Far more use should be made of wall lamps, indirect lighting and, in a room used for reading, of adjustable lamps, for which an adequate number of plugs should be provided. Reading in insufficiently lighted rooms is undoubtedly responsible for many cases of eye-strain.

The desirability of plenty of plugs for light and power is now widely recognised, but only too often they are placed on the skirting. Here they are frequently rendered difficult of access by the furniture, and for the aged and the corpulent it is a very real effort to bend down to an object within a few inches of the ground. Those responsible for so locating them commonly argue that switches so placed may be turned on and off with the foot, but it would surely take a chimpanzee to plug in a connection with the foot. The most convenient position for these plugs is from 2 ft. to 3 ft. from the floor.

Some builders now wire rooms for connection to a wireless aerial. Now that radio is so common a feature this practice might well be made universal. Care should be taken, however, that the wiring is suitable, and to ensure this the aid of an expert is advisable.

Labour-saving devices are now freely used in most kitchens, but generally there is still room for improvement. For example, an ironing-board which folds up into the wall is an extremely useful article which is not commonly fitted, as also is a last on a swivel arm for cleaning boots and shoes. Extra sinks for washing clothes are a feature of modern sculleries, but mixers are rarely fitted to the taps, although it would be a great help to the busy housewife to be able to adjust the temperature of the water before leaving the sink to fill. Nor does it seem to have occurred to anyone that, especially in the case of the wide sinks popular nowadays, the taps would be considerably easier to manipulate were they built into the wall, with the tops projecting horizontally. So placed, with the mixer to carry the water into the sink, not only would they be easier to work and present a neater appearance, but would lessen the chance of breakages when crockery is being handled.

Undoubtedly, however, it is the bathrooms which afford the chief causes for complaint. Too often, for the sake of cutting the expense by a very few pounds, our bathrooms are kept back to the standards prevailing in those dark ages when ablutions were at a discount. While tiling and bath-panels are now quite commonly met with, suitable waterproof flooring is considered an exorbitant demand for the lower-priced houses. Partitions are often so flimsy that it is impossible to make a small recess alongside the bath for soap, and so we are compelled to balance this necessary article precariously upon the edge of the bath, or to disfigure the latter by hanging wire monstrosities upon it. A cupboard built into the wall, preferably over the washbasin, is an invaluable repository for shaving tackle and other requisites, and yet it is rarely met with in English houses. To leave these articles in the open gives an untidy appearance to the room, and the fitting of shelves and cupboards on the walls is apt to diminish still further what are usually already cramped quarters.

The fitting most missed by overseas visitors is a shower. The great convenience of this item is not yet recognised in England as it is, for example, in North America, where a bathroom is incomplete without one. Indeed, in many cases it supplants the bath, over which it has, in fact, several advantages. It is quicker to use, and more economical of water, than the bath. If it is connected, as it should be, to both the hot and the cold water supply, one can start with the water pleasantly warm and adjust the temperature gradually through any range required, ending up, if desired, with the full force of the cold mains supply, thus combining the cleansing properties of a hot bath with the invigorating qualities of a cold one. For this purpose the hand type of shower commonly fitted is useless, and even some of the manufacturers agree that this type is employed more frequently for washing down the bath than for personal use. The shower should not be placed overhead, but set in the wall at a height of about six feet, and adjusted so as to send the spray obliquely to the user. By this means the full force of the shower may be obtained on any part of the body as one moves towards or away from the shower.

Preferably, of course, the shower should be located in a separate recess, but, failing this, waterproof curtains run along the length of the bath—or, better still, plate glass—will prevent the whole room being splashed. Even these measures might be unnecessary were the waterproof flooring installed as suggested above.

The ugliest bathroom fittings are the taps. It is admittedly difficult to design an attractive looking tap, although at least one firm exhibiting at the Building Exhibition at Olympia has achieved a pleasing design. The most desirable, both for appearance and convenience, are the quick-action taps, but, most unreasonably, the majority of our water boards refuse to sanction their use, despite the fact that boards in other countries find so little objection to them that they are almost universally employed. As though their illogical interference had not already gone to sufficient lengths the Metropolitan Water Board has recently acquired powers to forbid the installation of any tap not bearing their approval. It is due to similar archaic restrictions on the part of water boards that widespread use of the low cistern in water closets has been so long delayed, so that, in these days of alleged progress and enlightenment, we still have to tolerate the eyesore of lengthy pipes and chains.

The poor opinion of most overseas visitors of the sanitary equipment in our houses and hotels is due in large measure to the use of such out-of-date apparatus. It is indeed regrettable that we, who can justly claim to have been the pioneers in cleanliness and sanitation, should be so hampered by antiquated building acts, by-laws and red-tape, that we are now far outstripped in these matters by other nations.

Many of the points enumerated above may seem trivial, but, after all, in general design most modern houses are very much alike, and it is the sum of such small details that in the end makes the difference between a mediocre house and a really up-to-date one which is both labour-saving and a pleasure to live in. To incorporate the suggested improvements would involve little extra cost, and while in respect of houses, as of everything else, there will always be a certain amount of demand for cheapness regardless of quality, the average would-be purchaser is becoming more and more alive to the finer points, and—provided he gets value for his money—less liable to cavil at a little extra expenditure. Moreover, in these days of enhanced competition in speculative building, the most successful builder is likely to be the one who can show the most forethought and refinement in his construction.

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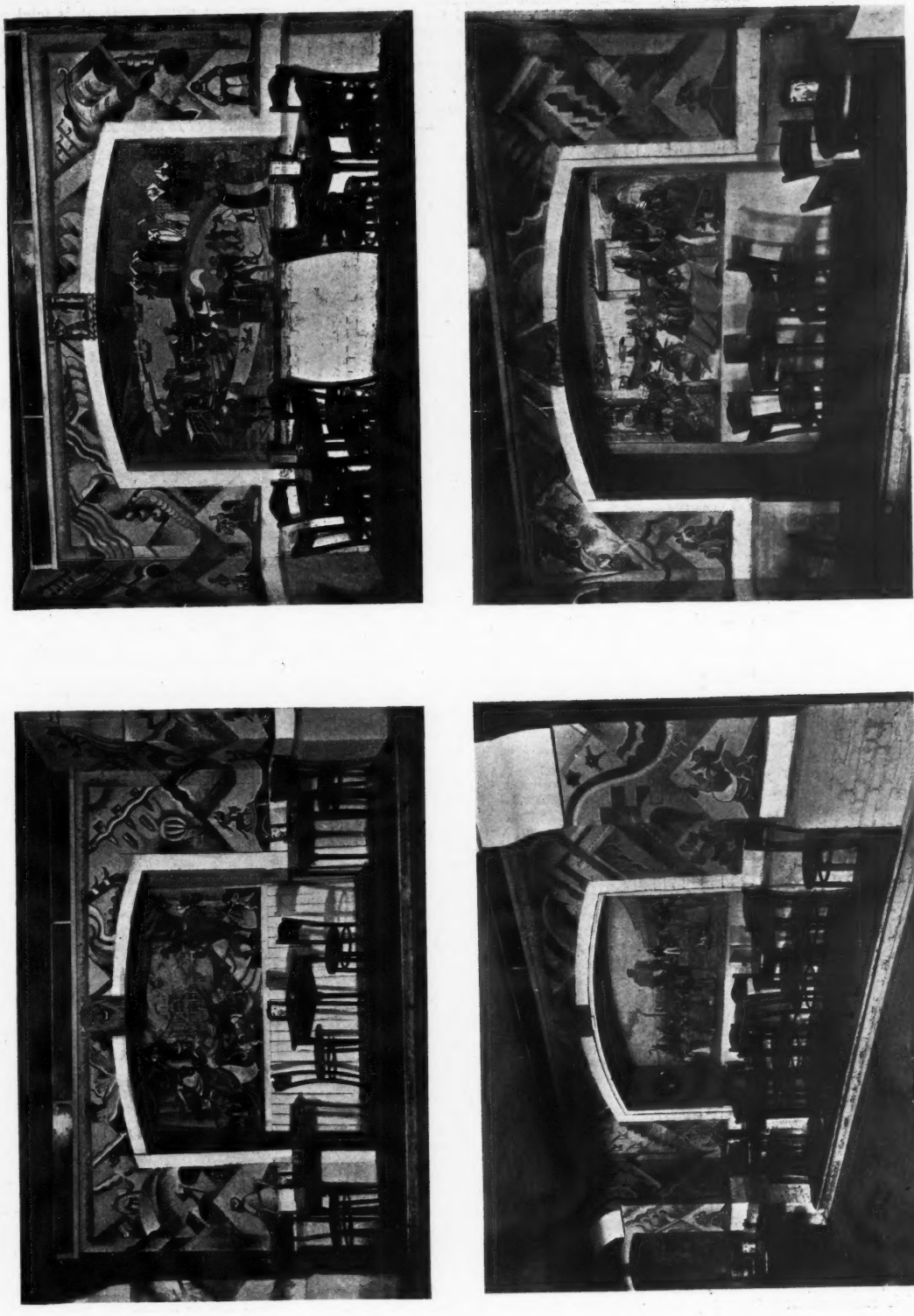
### The Town Planning Institute.

The sixteenth annual country meeting of this Institute will be held at Birmingham from October 5-7. Headquarters will be at the Queen's Hotel, New-street, and the party will meet on the Friday afternoon, at 3 p.m., at Queen's College, Paradise-street (opposite the Town Hall), where, after a welcome by the Lord Mayor (Alderman H. E. Goodby, J.P.), the President, Mr. Herbert H. Humphries, C.B.E., M.Inst.C.E., City Engineer and Surveyor, will read a paper entitled "The History of Town Planning in Birmingham and the Midland Region," to be followed by a discussion. At 8 p.m. there will be a reception at the Council House by kind invitation of the Lord Mayor and Lady Mayoress. On Saturday morning there will be a motor coach tour of inspection of town-planned areas and housing estates in the city, and in the afternoon a visit to Bournville to inspect the residential and industrial developments. The twenty-first anniversary commemoration dinner will be held at the Queen's Hotel in the evening. A tour of the Cotswolds will be undertaken on the Sunday morning. The programme is obtainable from the Secretary, 11, Arundel-street, W.C.2.



DECORATIONS IN THE AERO CAFÉ, RAMSGATE.
By MR. HECTOR WHISTLER.
(See pages 476-477.)

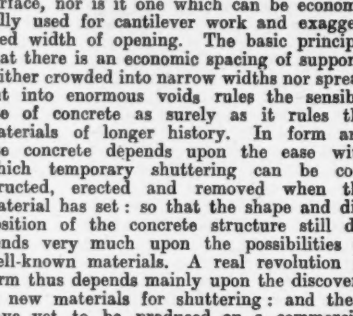
# ARCHITECTURAL STYLE TO-DAY—II

By G. MAXWELL AYLWIN, F.R.I.B.A.

## MATERIALS AND CONSTRUCTION.

We do not hear quite so frequently as was recently the case that reinforced concrete is the material of to-day: but there is no doubt that the quality and reliability of Portland cement brings forward cement concrete as a material which we should be foolish to ignore. We must in fact regard it as an important material in modern building construction, and one which must set its mark upon modern design.

The nature of concrete, however, is not always understood by those who claim to use it as their inspiration. It is not a plastic material especially suited to flowing line or surface, nor is it one which can be economically used for cantilever work and exaggerated width of opening. The basic principle that there is an economic spacing of supports neither crowded into narrow widths nor spread out into enormous voids rules the sensible use of concrete as surely as it rules the materials of longer history. In form and use concrete depends upon the ease with which temporary shuttering can be constructed, erected and removed when the material has set: so that the shape and disposition of the concrete structure still depends very much upon the possibilities of well-known materials. A real revolution in form thus depends mainly upon the discovery of new materials for shuttering: and these have yet to be produced on a commercial scale. We see by this, therefore, that however we may be convinced that concrete has come to stay, we are a long way from experiencing such a revolution as the extremist would appear to believe as typical of the times. As things stand, angle supports, natural growth from the ground upwards and simple shapes remain typical of building construction in its natural form.

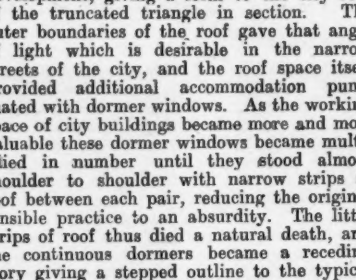


"The horizontal skyline is no new thing."

Perhaps the most obvious feature which the modernist adopts almost universally is the flat roof. Arguments can be produced to show that this is a sensible form to adopt, and we should be very foolish to say that the flat roof is inherently ugly or even unusual, as a shape. The horizontal sky-line is no new thing, but appears continually wherever post and lintel construction has ruled.

### The Development of the Roof.

In the cities, the development of the roof itself has followed an interesting and steady growth: a century or so ago the deep city building, too wide for the span of a single roof, took the form of two or more spans divided by internal gutters. A form of construction such as this has obvious disadvantages which need no emphasis to the technical reader. It was a natural development from this, aiming at removing a serious structural defect, that the ridges of these separate spans should be covered in with the flat, and the use of seamless flat roofing materials obviating the expense and defects of lead or copper sheeting encouraged this development, giving a form to the city roof of the truncated triangle in section. The outer boundaries of the roof gave that angle of light which is desirable in the narrow streets of the city, and the roof space itself provided additional accommodation punctuated with dormer windows. As the working space of city buildings became more and more valuable these dormer windows became multiplied in number until they stood almost shoulder to shoulder with narrow strips of roof between each pair, reducing the original sensible practice to an absurdity. The little strips of roof thus died a natural death, and the continuous dormers became a receding story giving a stepped outline to the typical city building. Concrete and flat roofs and framed construction lend their aid to this natural form, which is now firmly established and typical of modern town design. To rebel against this or to add redundant sloping roofs to a structure is reaction at its worst, and the true modernist is right.



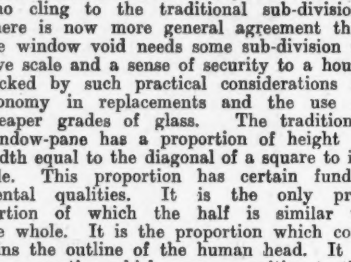
". . . dormer windows standing almost shoulder to shoulder."

It is not surprising that this naturally developed form should impress itself upon the designer to such an extent that he should wish to express some reflection of it upon the less-important buildings of the times: and it is fairer to the modernist to treat the domestic building with sheer white walls and flat roofs more as such a reflection and something greater than a pretence that the small modern house is assembled with slabs of concrete.

We must therefore accept this type of design in its proper and suitable place, demanding only of it that it should have its measure of natural grace, proportion, and warmth of feeling. We must resist the tendency to express modernism by exaggerations and the negation of principles which have governed the designer through all styles of history and which depend upon laws of force and gravity which are beyond us to alter. At the same time, we must realise that the building constructed of bricks laid one upon the other as our forefathers made them, and of timber joists and boarded floors used as all good builders have used them for centuries, is still a commercial proposition, and as such must retain a measure of those characteristics in design by which this generation will be known. The sloping tiled roof is still sensible and comfortable to live under, and still as cheap to construct as any flat roof which offers the same advantages of insulation and ease of repair. If we design naturally in this way we are being as true to ourselves as any other sensible modernist, but if we flavour our designs with a number of useless and redundant gable ends and complicated roof forms we are guilty of the exaggerations of which the traditionalist accuses the modernist. It may be thought we find difficulty in reconciling the natural use of the flat roof with an equally natural use of the sloping roof, but it is more probable that we create this difficulty in our minds and produce a discord for which there is no real reason. Reverting once more to the history book, which we continually find helps us to adjust ourselves to prevailing conditions, we shall find that the 18th-century builder in the country experienced no such misgivings, but used almost indiscriminately the parapet type of design, which was essentially a composition of horizontal skyline and the eaves-cornice type of design side by side. We feel no discord when we meet these different expressions in the same street, and if we could arrive at the same lack of self-consciousness, we should handle our difficulties in a similar natural way. In other words, it is fatal to modern domestic architecture to organise two political parties committed respectively to asphalt and tiles.

### The Proportions of the Window.

Another characteristic of the day is the popularity of the horizontal glazing bar. Hitherto we have had opinion divided between those who advocate a window without sub-division into smaller panes and those who cling to the traditional sub-division. There is now more general agreement that the window void needs some sub-division to give scale and a sense of security to a house backed by such practical considerations as economy in replacements and the use of cheaper grades of glass. The traditional window-pane has a proportion of height to width equal to the diagonal of a square to its side. This proportion has certain fundamental qualities. It is the only proportion of which the half is similar to the whole. It is the proportion which contains the outline of the human head. It is the proportion which pays recognition to the fact that a glazing bar on end is relatively stronger than one placed horizontally. There seems, therefore, a certain subtle influence in favour of maintaining a traditional shape which has continued in use for some centuries without thought of alteration, and it does perhaps seem less logical to adopt a middle course by eliminating vertical glazing bars and retaining only the horizontals than to "go the whole hog" and eliminate bars altogether. There must be a suspicion that the horizontal window-pane, so popular with the young architect of to-day, is no more than a gesture of defiance against a rooted tradition. If this is indeed the case—and there are many people who act without analysing their own motives



". . . . a natural form now firmly established."

—some caution should be exercised before we allow this habit to become ingrained into modern design.

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### Camberwell Town Hall.

A correspondent writes: "The opening of Camberwell's new town hall has had to be postponed until October 10, owing to the fact that the building is incomplete. An urgent search is being conducted for skilled workmen to complete the town hall, but with no great success. Dozens of unskilled labourers have applied for jobs, but the present building boom makes it difficult to find skilled men. Councillor S. E. Hall, the Mayor of Camberwell, who will open the new town hall, says it will be almost entirely completed, but that no departments would occupy the building until it was officially opened."

# THE ENGLISH VILLAGE

On Saturday last, September 15, Mr. G. H. Jack, Panel Secretary of the Council for the Preservation of Rural England, gave a popular lecture, in the Minor Hall, at the Building Exhibition, Olympia, on "The English Village, Past and Future."

The lecturer said that towards the end of the first century of our era the Romans brought orderliness into the planning of roads, villages and towns. They commenced their great work of colonisation as they intended to go on—method and forethought at every step. Not only were their roads wellnigh perfect in alignment and strength, but they were equipped at the time of construction with the equivalents of our road houses and garages, which were spaced a day's journey apart. They foresaw the necessities and provided for them. We were rather inclined to wait until the urgent need forced us into action. The small towns and villages were laid out on a preconceived rectilinear plan, the streets intersecting at right angles, an arrangement persistently followed until the beginning of the fifth century, when it was abandoned and forgotten for more than a thousand years and had, comparatively speaking, only recently been revived.

The Roman village was rather crowded inside the defensive walls. There were usually two fairly wide streets running in the direction of the cardinal points, but the majority were narrow, and some mere alleyways. The houses were always built of local materials—sandstone in the north, the Midlands and the west, and flint in the east and south. The roofs of the better houses were covered with stone or brick tiles; the poorer dwellings were thatched. After the Romans, the Saxons—a very different race. They avoided the well-chosen Roman sites, and chose for their habitation low-lying and sheltered localities, often a few miles away from the ruined Roman towns. They used wood and thatch extensively in their domestic buildings. Of their larger and stone buildings very little remained, but sufficient in the churches at Earls Barton, Bradford-on-Avon and Deerhurst to prove that they could build to last.

In the thirteenth and fourteenth centuries village life was thoroughly settled and consolidated. The sturdy countrymen were great agriculturists, and their sons fine craftsmen. The golden age was reached in the fifteenth and sixteenth centuries. Much evidence remained to this day of the art and experience of the builders of that time, in cottage, manor and church; the latter rose like miniature cathedrals in their nobility of conception and exquisite workmanship.

The wool trade was flourishing in those days, and many a village owed its fine buildings to the munificence of the local wool magnate. The Tudor period was justly famous for its domestic architecture, and so lasting has been the impression of its superiority that even to-day "sham" Tudor was the prevailing style. During the last few years a new style had emerged; for want of a better designation we called it "ultra modern." Whatever its faults might be, it was distinctly better than the "sham" Tudor. It might be an acquired taste—cold and severe—but against this the interiors were often cleverly planned with an eye on domestic convenience and ease of working, both points very attractive to housewives. This new type should not be intruded upon the older styles; if it was, it would offend. It required a setting of its own. He was convinced that our architects and builders could do better than the mediævalists if they were given a fair chance, and cared to make the effort. The builders of that period did not possess a fraction of the advantages which we enjoyed in machinery and good material.

The immediate result of the abundance of material and easy transport was that modern building, whether in town or country, was much of the same character. That was not so of old; then the villages grew, as it were, "out of the native soil." A glance at the geological map would give the traveller a good idea of the kind of houses he would see on his journey from west to east, and if he understood the nature of the Gloucestershire oolite, then he would not be surprised at the wonderful use which the 15th-century builders made of it in the Cotswold villages. The outstanding charm of the Cotswold type was due first to the abundance of building and roofing stone good in texture and colour, and secondly to the high competency of the local craftsmen. One might say in truth that in no other country in the world was simple native art so charmingly fitted to natural loveliness—an art achieved as the result of an intensified knowledge of the value and correct method of using local material, practised through a long period of years by generations of masons, labourers and gardeners, many of whom were possessed of unusual skill and great taste. They were not conscious that their work had any special merit. It was just the natural outcome of their experience; the work was good and inexpensive. This intimate knowledge of the handling and behaviour of local material was entirely responsible for much of the beauty and solidity of our Tudor cottages, whether they be situated in the stone country of the north and west, or the clays of the Midlands and the east and south. The material was worked and assembled to the very best advantage, and the result was complete harmony with the environment.

## Craftsmanship Not Dead.

The general opinion appeared to be that the age of good craftsmanship was past and gone for good. There was certainly much less of the kind he had been speaking about, but it was not dead, and in some circumstances it could easily be revived, and should be revived where it could be shown to be desirable and economical to do so. Within the last ten years a band of Herefordshire village masons and carpenters were engaged upon the widening and preserving of that county's fine old bridges. They took a delight in the task, and their work was quite equal to the best of its kind in any period. Work of the same kind was being done at the instance of the Office of Works and the National Trust, in the preservation of fine examples of early work both in cottage and castle. While acknowledging this good work, there was far more unnecessary and thoughtless destruction going on. He said "thoughtless" because the demolition of good work was often economically unsound, and would not be proceeded with if thought had been exercised. Very many country cottages had recently been condemned as unfit for habitation, simply because they were out of repair. If they were actually beyond repair and could not be made thoroughly sanitary and comfortable, by all means let them go. No one wanted to preserve unhealthy dwellings because they were old and might have pleasant exteriors. He knew of many instances where it had been demonstrated that it was easy and cheap to recondition the old cottages so as to make them quite serviceable, and even better to live in than some of the cheap modern work which would have taken their place.

There was scarcely a village in England which had not been marred by some eyesore. New building in old villages was rarely a success, unless great care was taken to make sure of harmony. A beautiful village had interests and attractions far beyond the limits of the village green. . . . Iron and asbestos were now prohibited materials in the construction of petrol stations. Why not in country cottages? Instead of allowing old cottages to be slighted in this way or demolished, it would be good business for the local authority to purchase and recondition them, a course which he believed had in some areas been taken.

The Town and Country Planning Act of 1932, if vigorously applied, would do all that was required in conserving the beauty of our dignified villages. The local authorities were given the opportunity to control the external appearance of any new buildings; whether they would use the power remained to be seen. More than twelve months had passed, and there did not appear to be any marked enthusiasm. The apathy could not be on account of expense. A voluntary body calling itself the Central Panels Committee was enabled by the generosity of architects and builders to give the very best advice free to any planning authority who cared to ask for it.

## Modern Services and the Amenities.

Owing to the decline in agriculture over a long period of years, village communities which were the centres of the great industry were comparatively poor. Let us hope that agriculture would come into its own again, and that the countryside might, consequently, flourish; but if it did not, village water supplies and drainage must be vastly improved. Electric light and power had recently been made available in many instances at the cost of ruining the amenities of the villages. The lack of modern services was one of the main reasons why young people would not stay in the country. The local inhabitants had the conviction that if they wanted the light, which they did, they must put up with any ugliness in the shape of poles, wires and transformers which the promoters cared to thrust upon them. In cases within his own experience, when the local authority had approached the companies and asked for their co-operation, disfigurement had been avoided. In villages of character and architectural interest, the overhead line should end on the outskirts and certainly not be carried on poles in the village street or green. If the company could show that such action would prove a financial loss, but not otherwise, then rather than spoil the village it might be made possible for the county or the locality to contribute towards the cost, and thus spread the burden over a wider area. It could not be denied that many of our incomparable villages were being sadly marred, if not completely spoilt, not solely by poles and wires, but also by unsightly building and obtrusive advertising.

He had outlined methods by which the charm of our existing villages might be retained and improved. If the village population was increasing, the existing houses should be carefully reconditioned and the essential services provided. Entirely new buildings should be planned on a suitable and adjacent site. The thrusting of new houses among the old ones should be avoided.

It was unlikely that any entirely new villages would be created in remote rural situations. The tendency was to expand the towns, and, most unfortunately, by stringing out the houses along every approach; and in the case of new roads the same practice holds. This ribbon development had nothing to commend it. It reduced the traffic value of the road; it was the cause of loss of life, and it shut out the view of the country from the highway. All that could be said in its favour was that it saved the promoters the road costs and thus increased the value of the strips of land abutting on the highway.

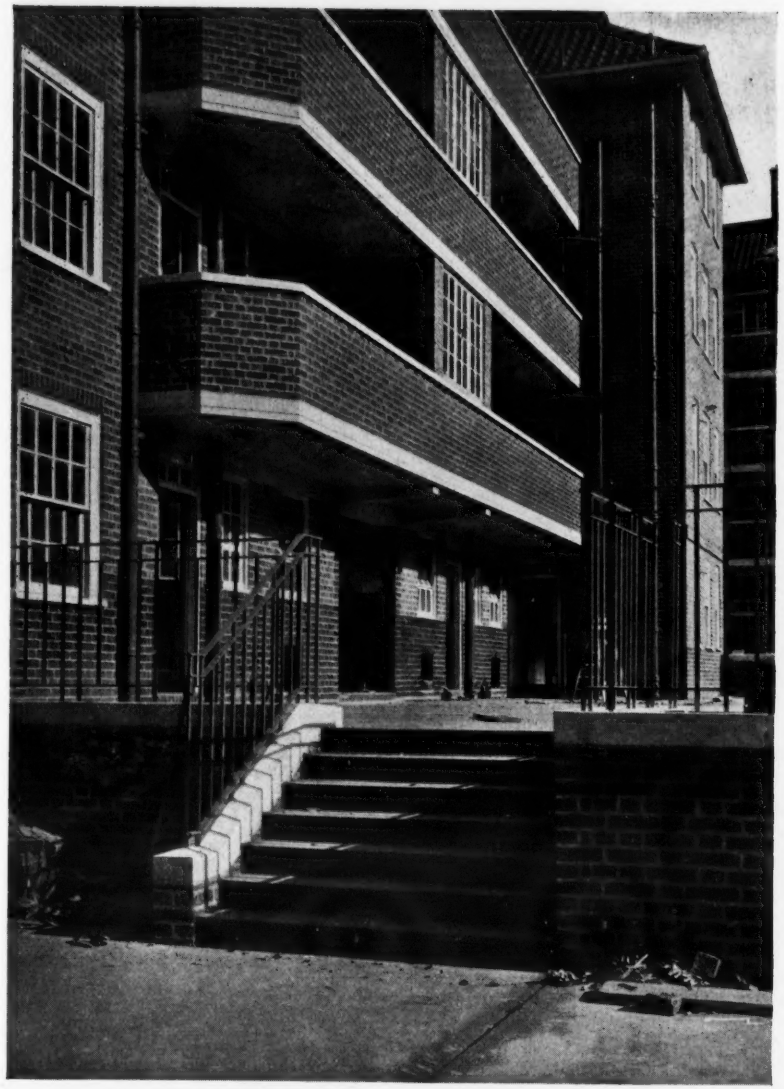
The Surrey County Council had shown that it was not necessary to crowd the frontages of our new and expensive roads with ribbon building. What they had done others could copy. He presumed that, provided the owner of the land could be met in the matter of road charges by a contribution either from the National Exchequer or the local rates, he would not raise objection to grouping his building well away from the noise and danger of the "railway-like" arterial roads, much to the advantage of all concerned; and what a chance for the creation of the villages of the future!—well planned and spaced, good-looking and equipped with all the advantages which science had bestowed since the Tudor period. If we admitted that we could not continue to equal and surpass the accomplishments of our ancestors in creating pleasant surroundings for people who did not wish to live in crowded towns, then we were admitting ignominious defeat.

THE NATIONAL PROVINCIAL BANK, LIVERPOOL.

MESSRS. F. C. R. PALMER AND W. F. C. HOLDEN, FF.R.I.B.A., Architect and Assistant Architect to the Bank.

THE NATIONAL PROVINCIAL BANK, LIVERPOOL : Public Space.

MESSRS. F. C. R. PALMER AND W. F. C. HOLDEN, FF.R.I.B.A., Architect and Assistant Architect to the Bank.

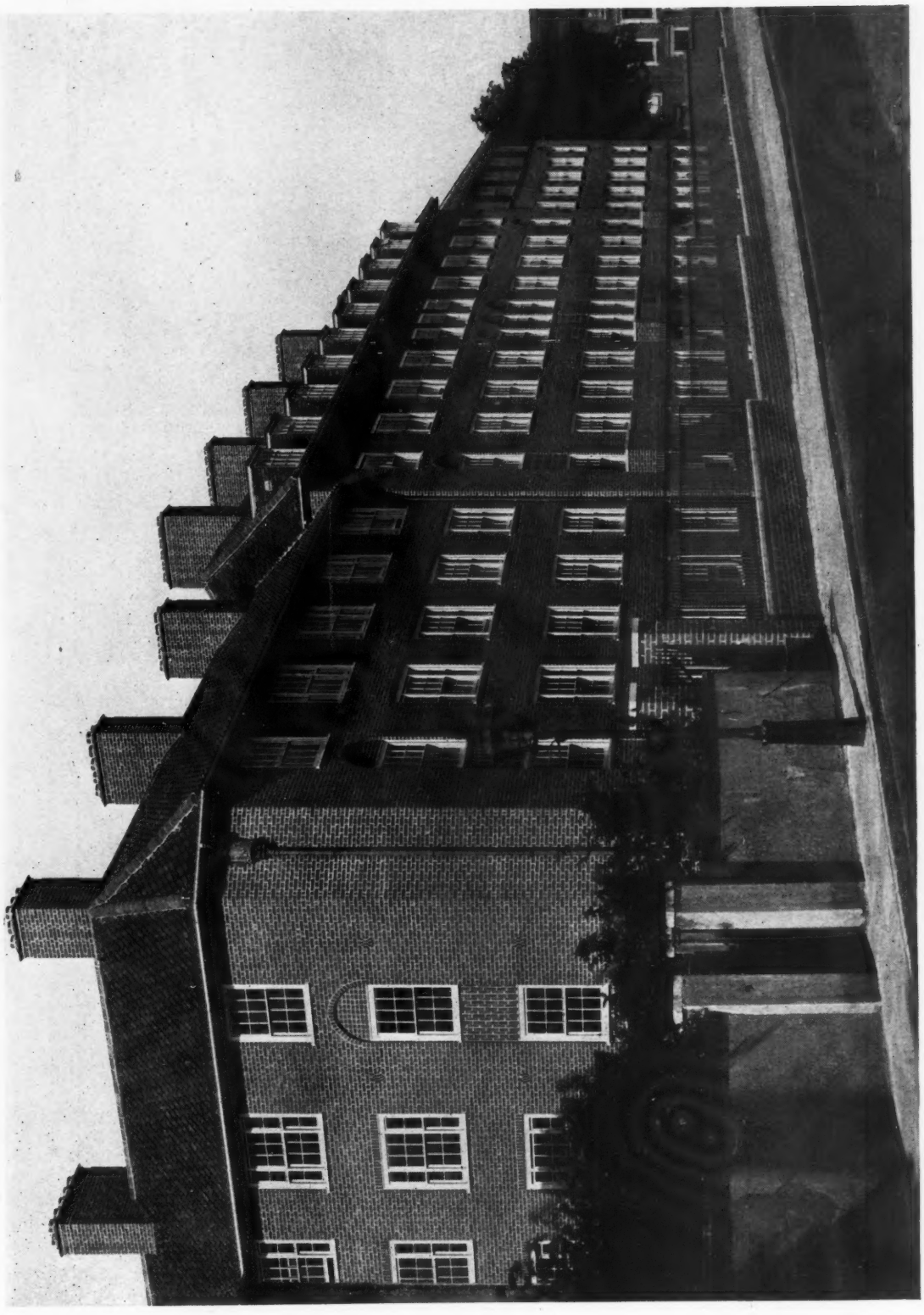


LORDSHIP HOUSE : VIEW SHOWING BALCONIES.

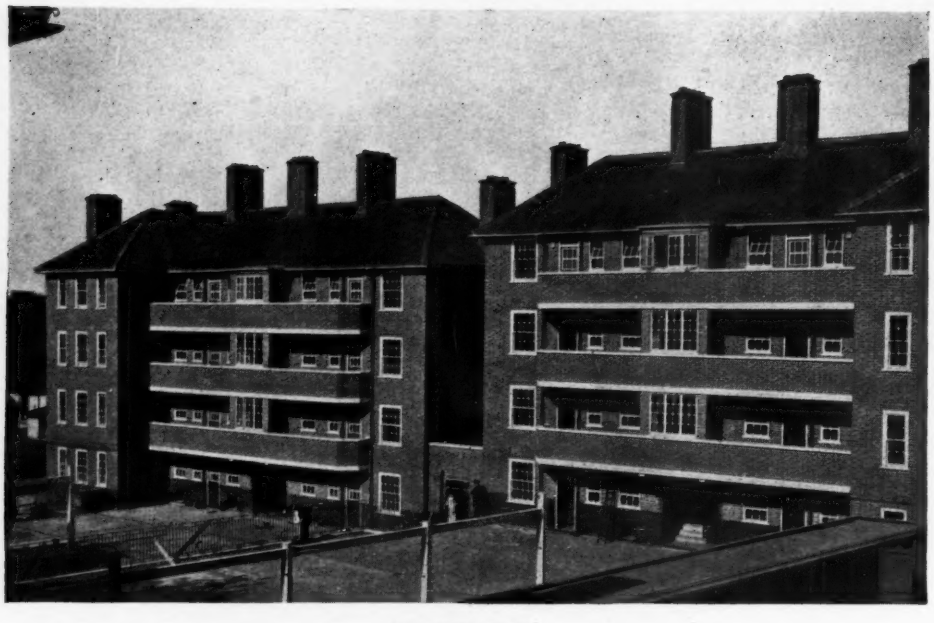
VIEW IN COURTYARD, SHOWING CLISSOLD HOUSE.

HOUSING SCHEME, LORDSHIP ROAD, STOKE NEWINGTON.

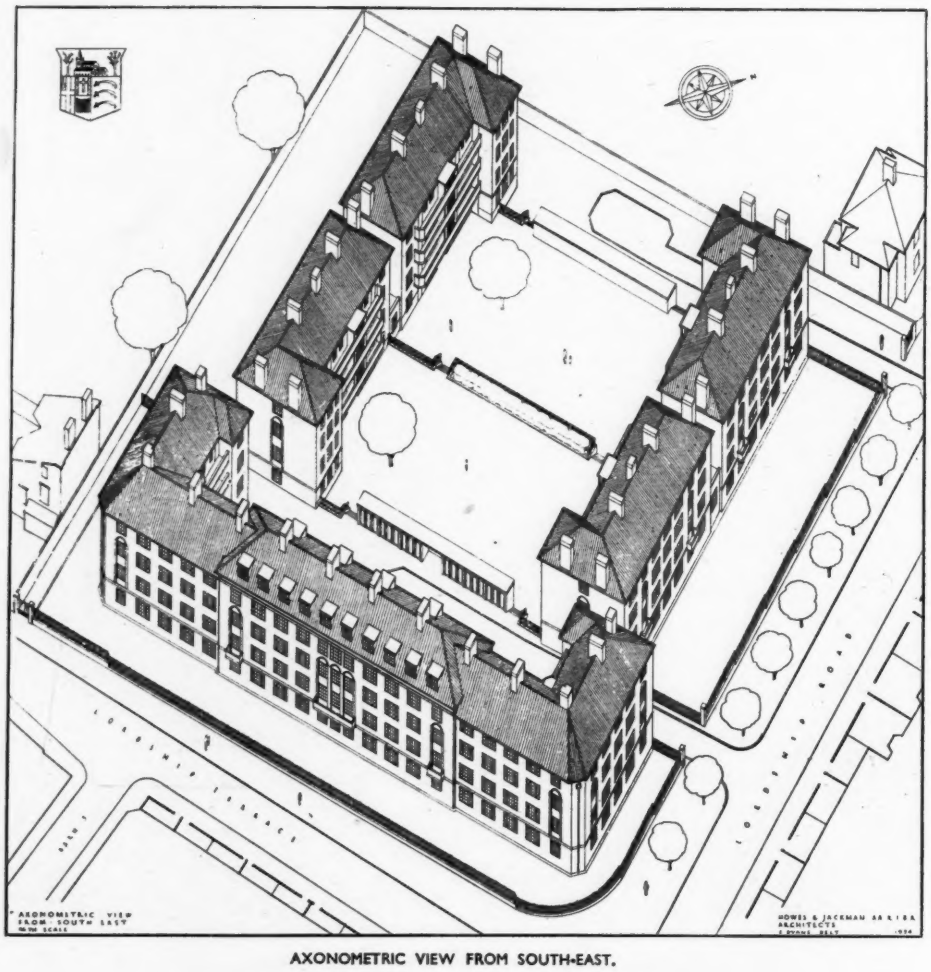
MESSRS. HOWES AND JACKMAN, AA.R.I.B.A., Architects.



HOUSING SCHEME, LORDSHIP ROAD, STOKE NEWINGTON : Ormond House.
MESSRS. HOWES AND JACKMAN, AA.R.I.B.A., Architects.



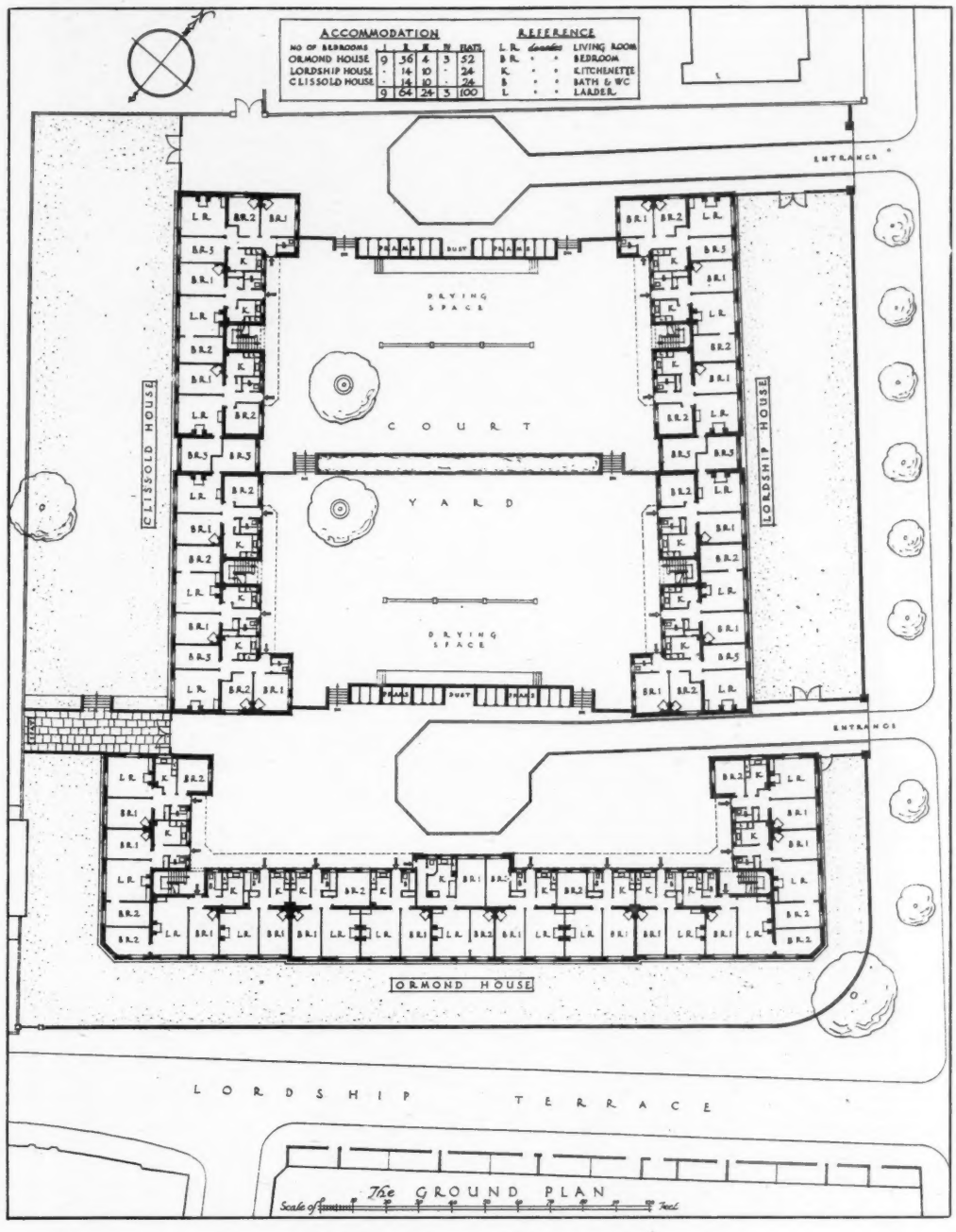
LORDSHIP HOUSE.




AXONOMETRIC VIEW FROM SOUTH-EAST.

HOUSING SCHEME, LORDSHIP ROAD, STOKE NEWINGTON.

MESSRS. HOWES AND JACKMAN, AA.R.I.B.A., Architects.



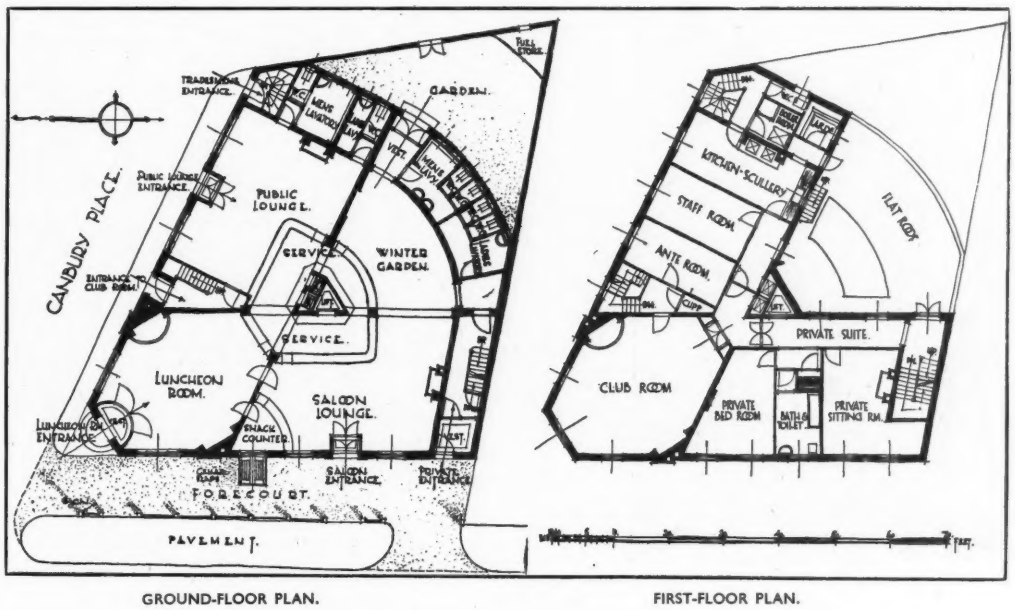

HOUSING SCHEME, LORDSHIP ROAD, STOKE NEWINGTON.

MESSRS. HOWES AND JACKMAN, AA.R.I.B.A., Architects.

THE "VINTNERS' ARMS" PUBLIC HOUSE, GUILDFORD.

MR. JOSEPH HILL, F.R.I.B.A., Architect.

PRINCIPAL FRONTAGES.

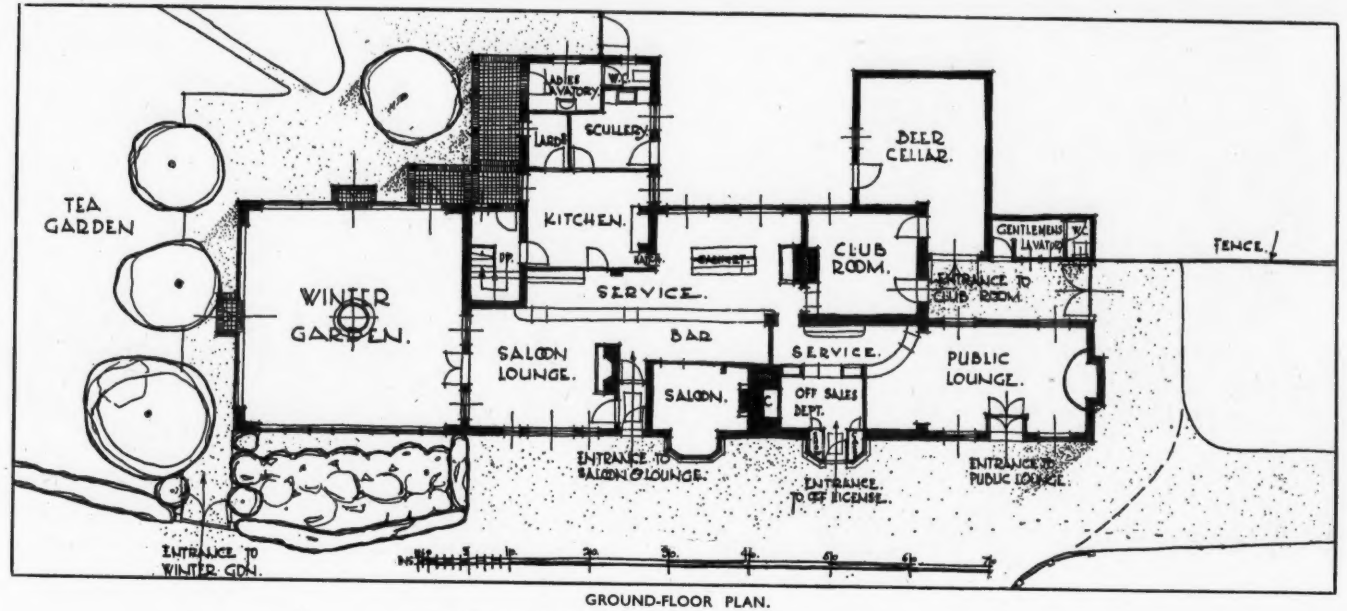



GROUND-FLOOR PLAN. FIRST-FLOOR PLAN.

THE "THREE FISHES" PUBLIC HOUSE, KINGSTON.

MR. JOSEPH HILL, F.R.I.B.A., Architect.

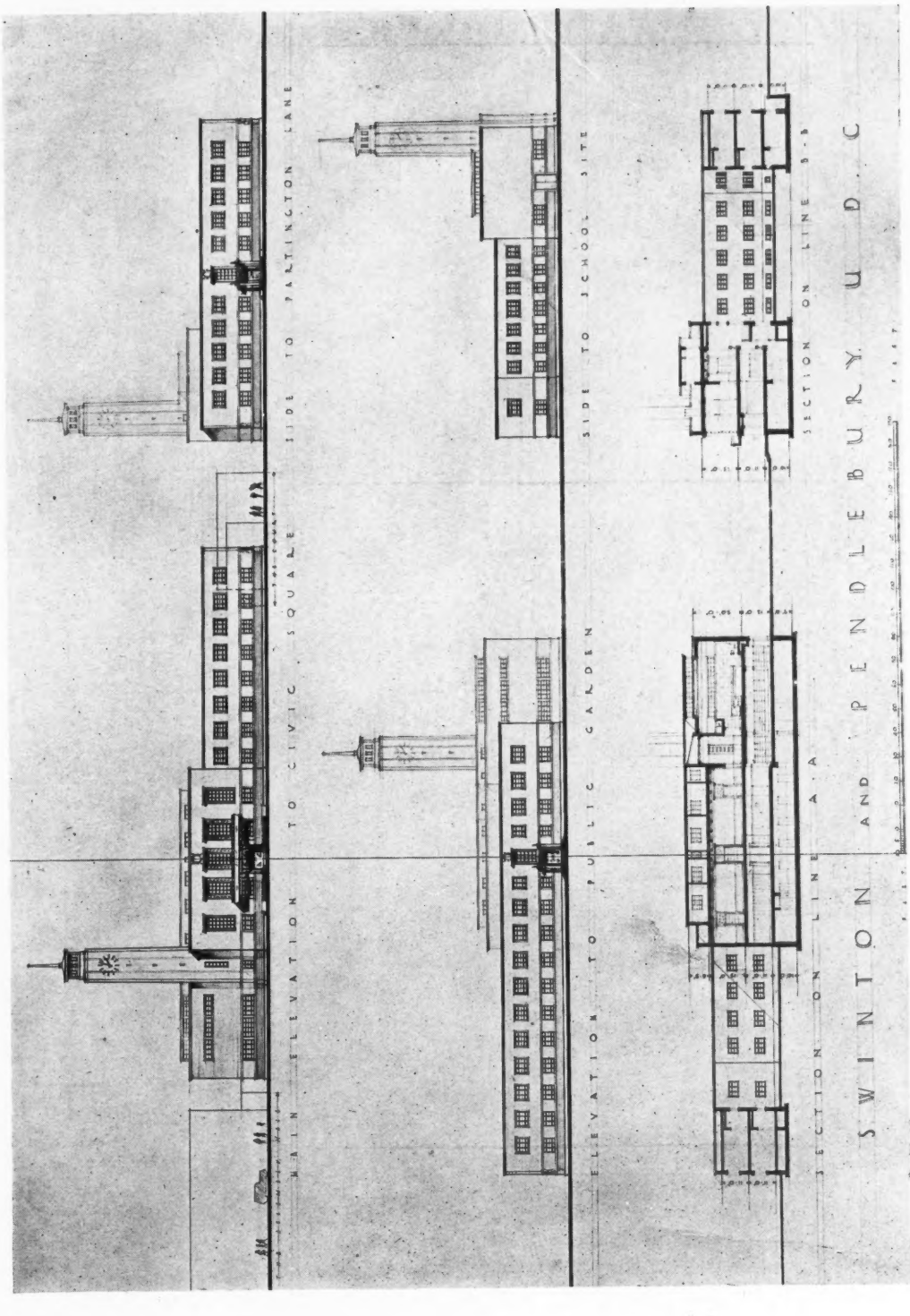
ENTRANCE FRONT.




GROUND-FLOOR PLAN.

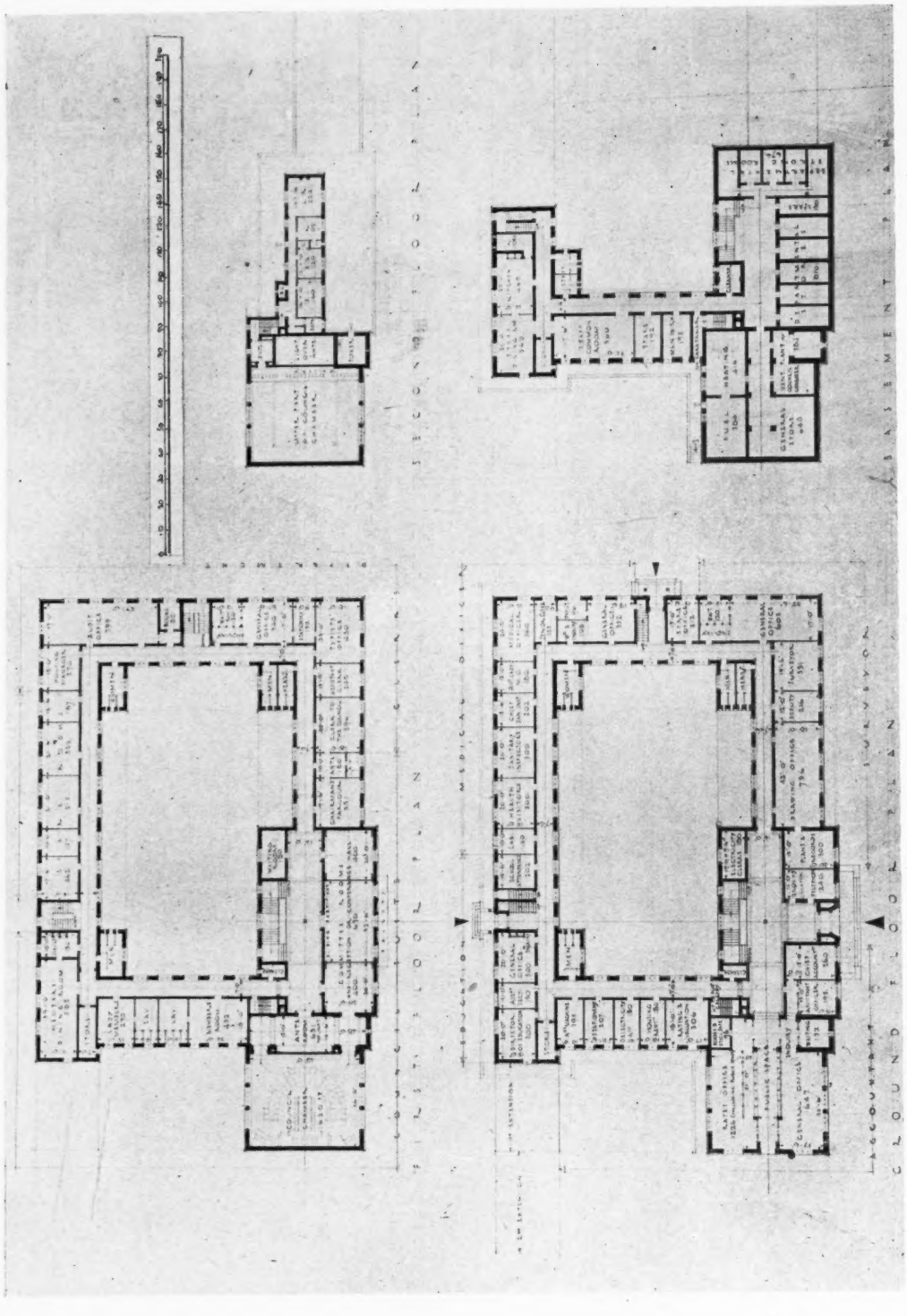
THE "PLOUGH" PUBLIC HOUSE, MALDEN.

MR. JOSEPH HILL, F.R.I.B.A., Architect.


MAIN ELEVATION TO CIVIC SQUARE
SIDE TO PALTINGTON LANE
ELEVATION TO PUBLIC GARDEN
SIDE TO SCHOOL SITE
SECTION ON LINE A-A
SECTION ON LINE B-B
SWINTON AND PENDLEBURY U.D.C.

SWINTON AND PENDLEBURY MUNICIPAL BUILDINGS COMPETITION: Second Premiated Design.

By MR. L. W. THORNTON WHITE, A.R.I.B.A.

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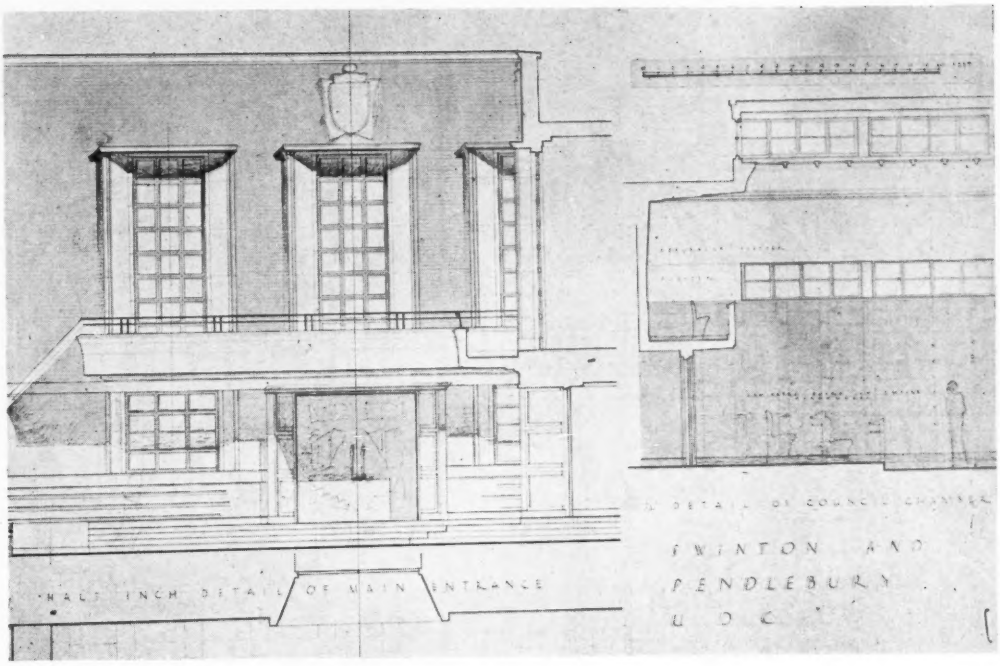
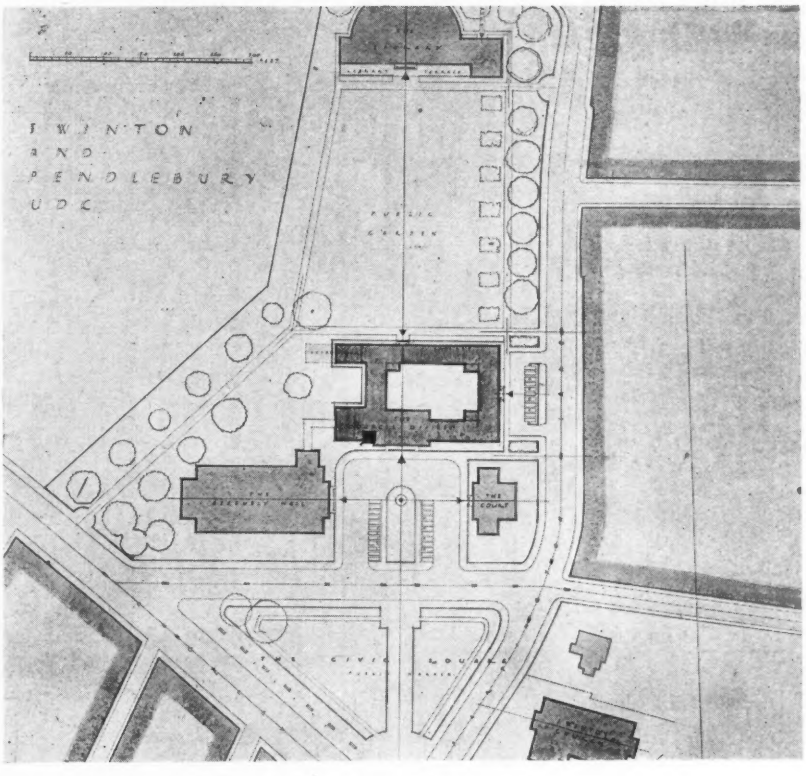


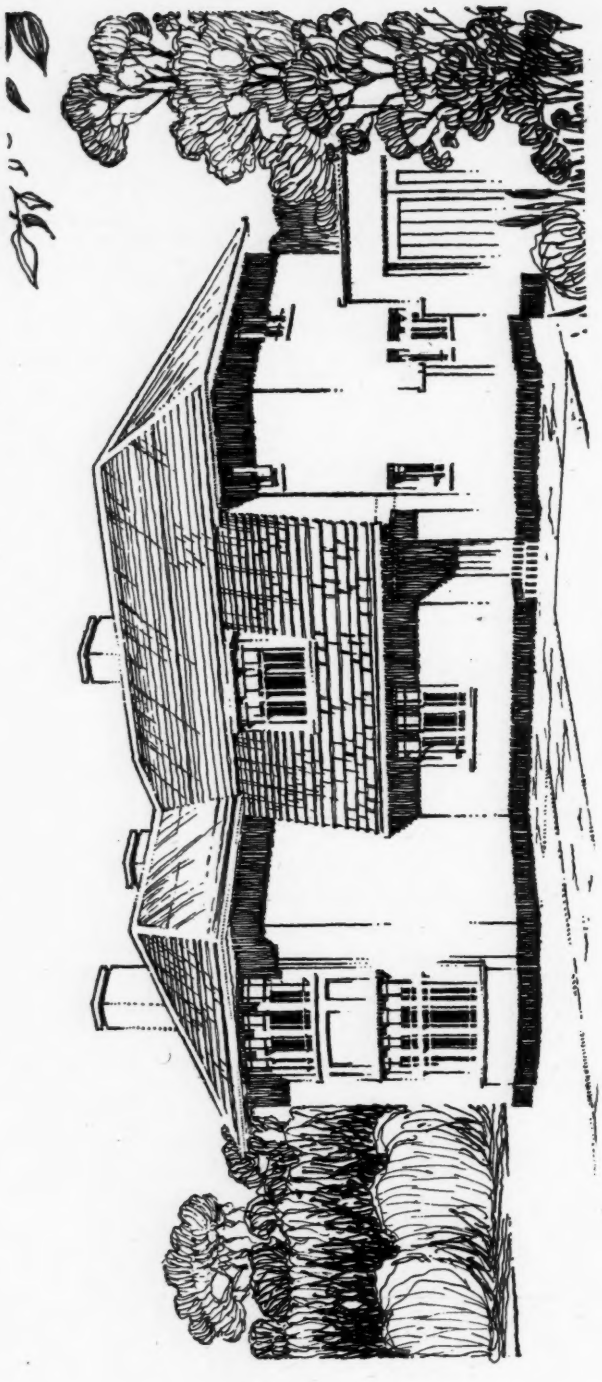

DETAILS.




BLOCK PLAN.

SWINTON AND PENDLEBURY MUNICIPAL BUILDINGS COMPETITION: Second Premiated Design

By MR. L. W. THORNTON WHITE, A.R.I.B.A.



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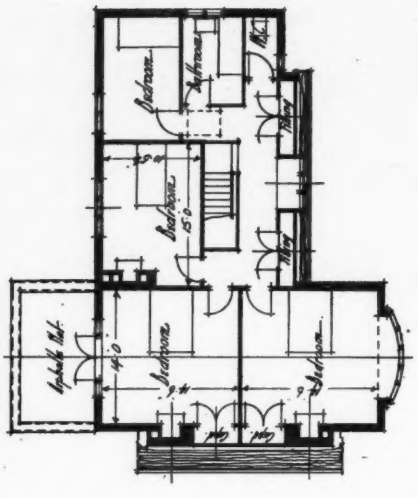
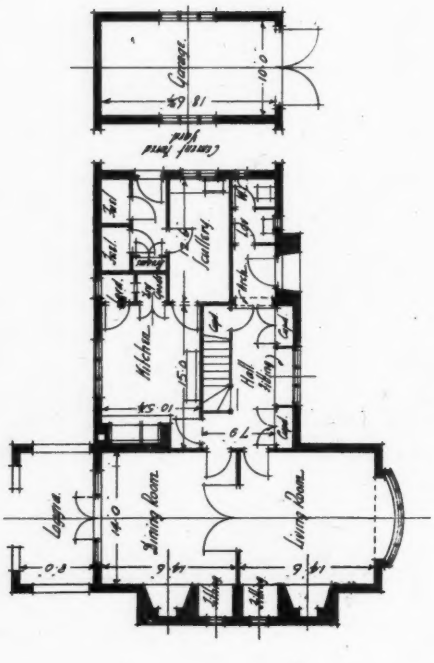



First Floor Plan.




Ground Floor Plan.

A HOUSE AT THAMES DITTON.

MR. G. ALAN FORTESCUE, F.R.I.B.A., Architect.

MR. G. ALAN FORTESCUE, F.R.I.B.A., Architect.

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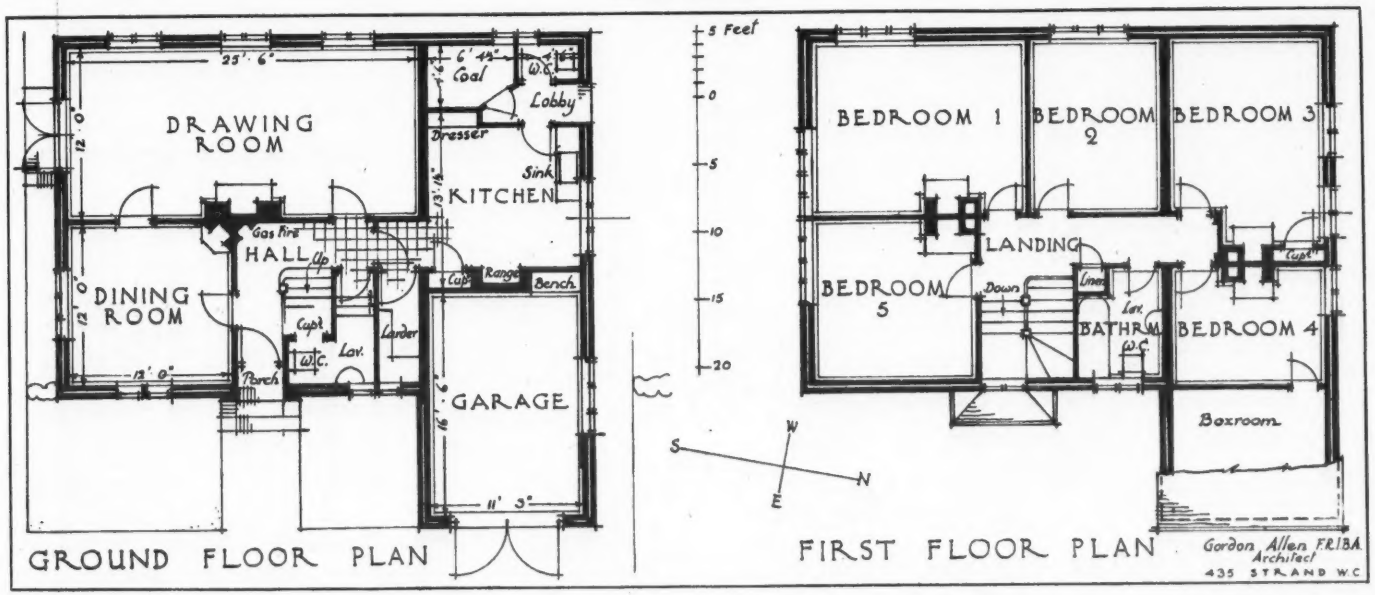
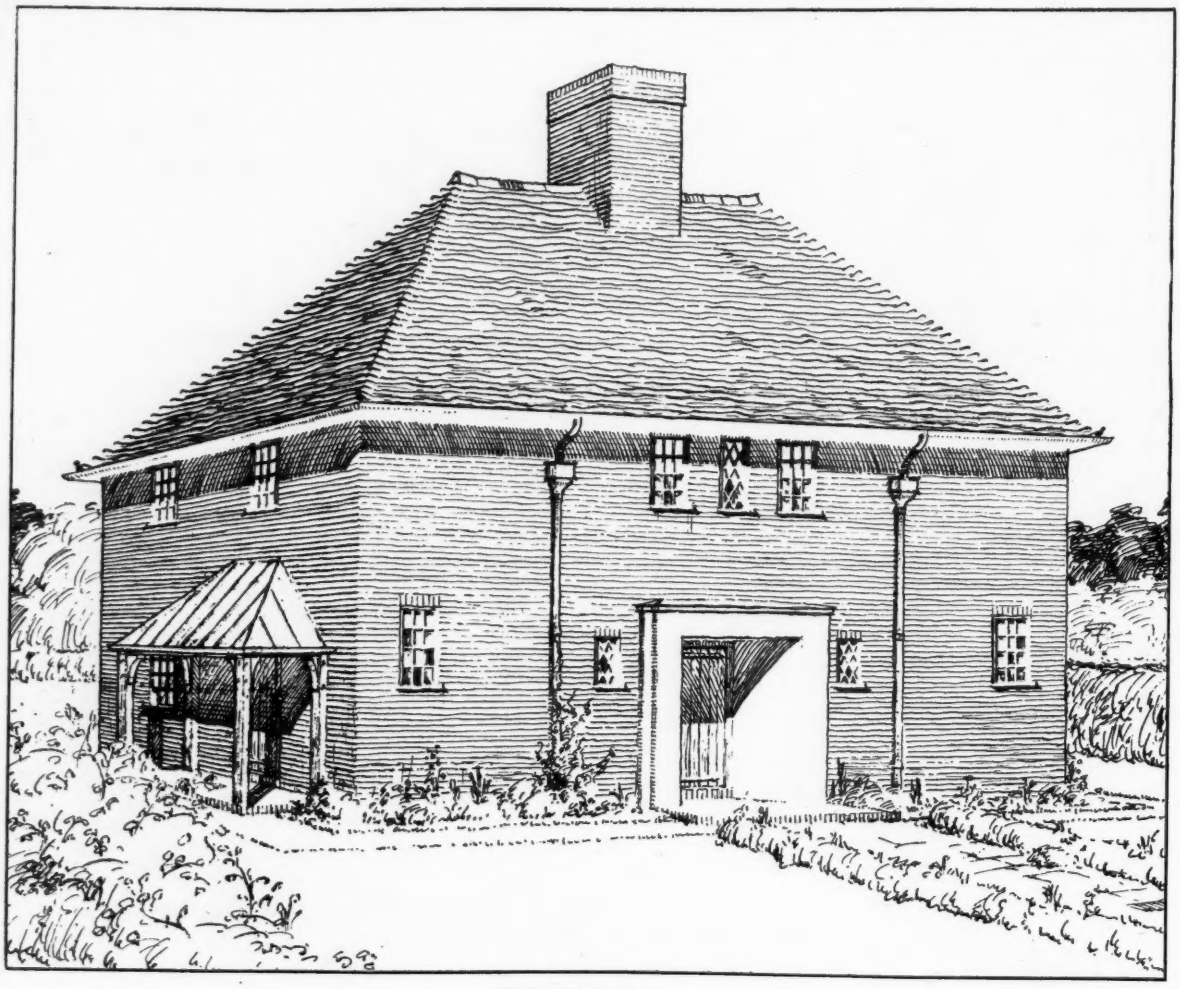



A HOUSE AT RICHMOND PARK.

MR. GORDON ALLEN, F.R.I.B.A., Architect.



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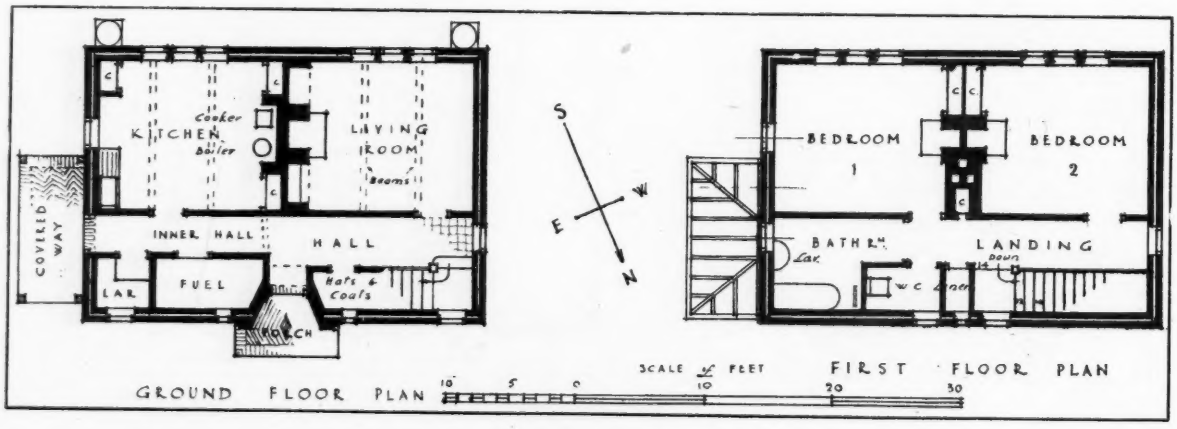



A COTTAGE AT MIDHURST, SUSSEX.

MR. GORDON ALLEN, F.R.I.B.A., Architect.

# ILLUSTRATIONS

## PLATES.

### National Provincial Bank, Ltd., Liverpool.

In 1932 the site and the 35-year-old building formerly occupied by the head office of Martin's Bank at 7, Water-street, Liverpool, was acquired by the National Provincial Bank, whose premises in Derby-square had for some time been inadequate to deal with the existing business. A condition of the purchase was that the front portion of the old buildings facing Water-street should be pulled down, and some 17 ft. of the site should be thrown into Water-street, bringing a new frontage in line with India House.

The remodelling of the front of the building gave an opportunity to re-plan the whole of the ground floor, and the entrance was moved away from the angle of the site adjoining Lower Castle-street to a more important position in the centre of the frontage, leading direct into the new public space of the bank office. The old roof over this portion has been removed, and replaced with a new barrelled ceiling some 15 ft. higher than the old ceiling. This treatment has greatly improved the natural lighting and has added considerably to the dignity and appearance of the interior of the banking hall.

A very large portion of the materials in the old bank has been used afresh in the reconstruction—for example, the whole of the granite (including the polished plinth) in the new elevations comes from the old building (with the exception of the columns and pilasters, which consist of larger stones than were to be found among the old stones). Also the panelling, in finely veneered mahogany, and the marble fireplace from the old board-room, are now to be seen in the new manager's room on the right of the entrance. The floor, too, of the public space consists of marble tiles cut from the wall lining of the main staircase, which was demolished. The building now provides ample accommodation for the three businesses of the National Provincial Bank, formerly housed in Derby-square, Water-street and Cotton Exchange branches.

A second entrance to the bank has been provided in Fenwick-street for the benefit of those customers who approach it from the direction of the Corn Exchange and Derby-square. The same entrance provides access to the offices on the first and second floors, which are not required by the bank and are available for letting purposes.

Messrs. G. and E. Wallis and Sons, Ltd., were the general contractors, and the following firms were associated with the work :—Brookes, Ltd., granite; G. and A. Brown, fibrous plaster; Art Marbles, Stone and Mosaic Co., Ltd., pavings; James Slater and Co., heating, etc.; John Hunter and Co., Liverpool, electrical work; Maple and Co., Ltd., fittings and furnishings; Doodson and Bain, Manchester, metal windows; Mellowes and Co., Ltd., lanterns; Fenner and Alder, Ltd., paint. This firm, we are informed, supplied their "Lustrene" enamel, "Sunkoat" enamel (a special egg-shell leadless finish), "Labesco" oil-bound washable distemper, and "Fenalac" products, the last-named having been applied to the safes and strong-rooms.

Messrs. F. C. R. Palmer and W. F. C. Holden, FF.R.I.B.A., are the architect and assistant architect to the bank.

### Stoke Newington Housing Scheme.

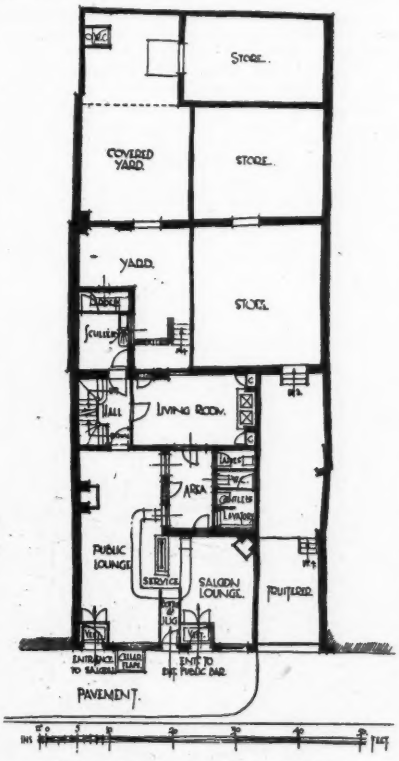
The Borough Council's housing scheme at Lordship-road, which is to be opened by the Minister of Health on September 28, was the subject of a limited competition in the spring of last year. Building operations began in the following October. The scheme comprises a hundred flats, each having a living-room, kitchenette, bathroom, and fuel store, and from one to four bedrooms. The buildings are four stories high, except for the centre of "Ormond House," which has maisonettes with bedrooms in the roof. The blocks are grouped around a large paved courtyard, so that the buildings follow the general lines of the adjoining roads, and the yards, which will be used for drying clothes, are not visible from the roads. Owing to the fall of about 11 ft. in the site towards the north, and to provide additional cross ventilation, the side blocks are divided into two halves at different levels and separated above the first-floor level, the yard being terraced to correspond.

The general layout is on the balcony approach principle, the common stairs having hard brick dadoes with glazed cement or gault bricks above. The individual flats are planned with a minimum of internal corridors, some of the small bedrooms in the larger flats being entered from the living-rooms. The kitchenettes have two cupboards in addition to the larder, one being under the sink and draining boards. The finish throughout is designed to facilitate cleaning and to minimise dust-collecting ledges and mouldings. For this reason, composition floors are used, with coved skirtings, and walls of kitchenettes and bathrooms are finished in glazed cement; the doors are single panel, and the picture-rails consist of a $\frac{1}{8}$ in. by 1 in. strip of metal fixed $\frac{3}{4}$ in. from the wall face.

The construction is of Fletton brickwork, with multi-colour facings, with hollow tile floors and patent pantile roofs. British Columbia pine is used throughout for all carpenters' and joiners' work, the windows being double-hung sashes. The partitions are hollow blocks made from Moler earth. Each flat has its own hot-water supply, provided by an "Interoven" stove in the living-room, and the pipes throughout are of copper. Most bedrooms have an open coal fireplace, the remainder being fitted with an electric heating point. The tenants are to have the choice of gas or electricity for cooking stoves and coppers, and electrical power points are provided in the living-rooms for wireless sets.

The general contractors were Messrs. Rowley Bros., Ltd., and the following firms were associated with the work :—Nutbourne Brickworks, Ltd., facing bricks; Kleine Co., Ltd., fire-resisting floors; Roberts, Adlard and Co., Ltd., pinion pantiles; Moler Products, Ltd., "Fosalsil" partition blocks; W. T. Lamb and Sons, Ltd., gault bricks to stairs; A. D. Wire and Co., composition floors; Turner, Hall and Co., Ltd., cold cement glaze; Stuart's Granolithic Co., Ltd., artificial stone and precast steps; Interoven Stove Co., Ltd., living-room stoves; Cornes and Haighton, Ltd., hot- and cold-water services in copper with "Kontite" joints; General Light Castings, Ltd., sinks and baths; Geo. Wright and Co., Ltd., mantel registers and w.c.s; Royde and Tucker, Ltd., sash chains and pulleys; Nettlefolds, Ltd., ironmongery; Cromwells, Ltd., "Crommoid" bakelite furniture, letter-boxes and notice plates; S. W. Farmer and Sons, Ltd., wrot-iron railings and gates; Thos. Elsley, Ltd., rainwater heads; W.B. and H.C. Cables, Ltd., electrical installation; Greenwood's Ventilating Co., Ltd., larder ventilating windows and wall vents.

Messrs. Howes and Jackman, AA.R.I.B.A., are the architects.




THE "VINTNERS' ARMS," GUILDFORD: Ground-floor Plan.
MR. JOSEPH HILL, F.R.I.B.A., Architect.

### The "Three Fishes," Kingston.

This house has been recently rebuilt on an awkward site. Multi-coloured sand-faced T.L.B. bricks are used for the facings. The general contractors were Messrs. Woodward and Co., Ltd., and the sub-contractors were as follows: Thomas Lawrence, Bracknell, facing bricks; Daneshill Brick and Tile Co., Basingstoke, roofing tiles; London Brick Co., Flettons; Excel Asphalte Co., Ltd., asphalting, Aston Construction Co., Ltd.; steelwork; O'Brien, Thomas and Co., Ltd., sanitary fittings; the Abbey Heating Co., heating and hot-water installations; Crewe Allen, Ltd., electrical installation; J. and E. Hall, Ltd., passenger and hand-power lifts; Gaskell and Chambers, Ltd., countering, pewtering and cabinets; the Morris Singer Co., leaded glazing and ceramic enamelled wall tablets; Yannedis and Co., ironmongery and ceramic enamelled letters; Comyn Ching and Co., Ltd., decorative metal work; Heaton Tabb, Ltd., internal decorations to saloon, winter garden, clubroom and luncheon room; Crittall Manufacturing Co., Ltd., metal windows and lantern light; Peradin Rubber Sales, Ltd., rubber flooring.

Mr. Joseph Hill, F.R.I.B.A., is the architect.

### The "Vintners' Arms," Guildford.

The general contractor for this house was Mr. G. A. Reeve, and the following were sub-contractors: Thomas Lawrence, Bracknell, bricks; Horsecombe Stone Quarries, stone dressings; The Aston Construction Co., Ltd., steelwork; O'Brien, Thomas and Co., Ltd., sanitary fittings; The Abbey Heating Co., hot water installation; G. A. Reeve, electrical installation; Gaskell and Chambers, Ltd., counters, pewtering and cabinets; Yannedis and Co., ironmongery and letters; the Crittall Manufacturing Co., Ltd., metal windows and skylight.

Mr. Joseph Hill, F.R.I.B.A., is the architect.

### "The Plough," Malden.

The general contractors for this house were Messrs. C. H. King and Sons, and the following were sub-contractors: Aston Construction Co., Ltd., steelwork; the Morris Singer Co., windows, lead glazing to winter garden; Crittall Manufacturing Co., Ltd., standard metal windows; W. H. Heath, Ltd., counters and pewtering; Yannedis and Co., ironmongery and letters; Mollo and Egan, decorative treatment to winter garden.

Mr. Joseph Hill, F.R.I.B.A., is the architect.

### Swinton and Pendlebury Municipal Offices.

We illustrated in our last issue the winning design in this competition, by Messrs. Percy Thomas and Ernest Prestwich, FF.R.I.B.A. This week we illustrate the second premiated design, by Mr. L. W. Thornton White, A.R.I.B.A., from whose report we take the following extracts :—

It has been the competitor's aim to utilise the characteristics of the site and surroundings to the best possible advantage, and at the same time to form a practical and digni-

(*Continued on page* 507.)

# THE BUILDING TRADES' EXHIBITION

## A CASUAL TOUR OF OLYMPIA—II.

By "MEAGERON"

THE 300 odd stands, as a whole, are more pleasing this year than those in the past; they are simpler, and show less anxiety to strain the use of limited space. The fashionable horizontal line finds favour and does much towards unifying the character of the exhibition. With so much display intent on claiming attention the visitor must focus his interest on a single detail at a time if he would be enlightened. The following is an account of some selected details.

"Prestal" imitation marbles, it is said, cost one-tenth the price of real marble. This material is quite astonishing as imitation, and but for the warmth of touch seems exactly the same as marble. It is asbestos sheeting with marble grain photographed on to it. It is coloured, of course, and it can have a high polish, obtained by coats of transparent cellulose. This product, which competes against small unit tiling and synthetic imitation marbles, is made by the British Legion Settlers, and the organisation takes no profits.

Another imitation material of interest, produced by Reproductions, Ltd., is known as "Rep Marble and Rare Wood Finishes," which are available on asbestos-cement sheets, wallboards, plywood, aluminium sheets, tinplate and blackplate. The material

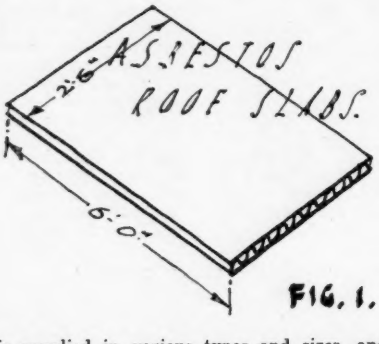



FIG. 1.

is supplied in various types and sizes, and reproduces all the beauty and delicate veining and colour of marbles and woods. The surfaces are lasting, and it is claimed that they are waterproof and fireproof and will not crack.

Chanis "Euphon" glass silk insulates sound in walls. The demonstrator puts you into a tiny (and rather terrifying) cell and sends noises through the walls, and convinces you of the amazing power of "Euphon" to deaden sound. This silk, like silver horsehair, is a substitute for the normal ash and lime and felt insulations, and is being sold for building work in quilts 3 ft. by 27 yds. long. It is liked because it is clean, easy to handle, and possesses the great advantage of being unappetising to vermin.

"Stic B" show a variety of colours and textures. The great virtue claimed for "Stic B" is that it can be put on green concrete or plaster not quite dried out—a useful material on a rush job. An application of it is said to last about five years on an outside wall. One of the coloured forms, a strong blue, was used under water at the new penguin pond at the Zoo.

Messrs. Colthurst, Symons & Co., Ltd., the well-known tile makers, of Bridgwater, give a special display of their "Lido" patent interlocking tiles erected on a temporary roof. The tiles have a pleasing, soft, green colour, and are of the double Roman type but with a much larger roll. "Sky-blue" glazed tiles of the Spanish type, which strike a romantic note, are stocked in sizes to meet the new demand for a suitable cover to protect circular roofs. The courses

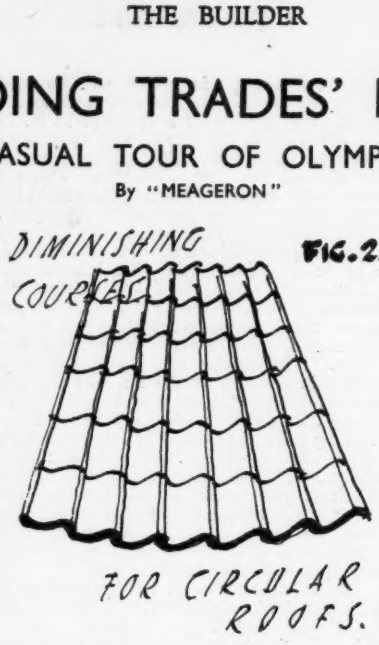



FIG. 2.

diminish, which means different sizes for head and side laps (Fig. 2).

The makers of "Poilite" (Messrs. Turners Asbestos Cement Co.) sport a kind of church tower dominating the middle of the grand hall. The "Turnall" building slab (hollow construction) which they show is attracting considerable attention because it looks like a solution of the problem of a really effective and cheap flat roof. It will be seen in Fig. 1 that two flat sheets of asbestos are reinforced by an intermediate corrugated sheet. The sheet needs a cover of built-up felt and bitumen. The "Turnall" Trafford sheets, reinforced with a wire mesh, show surprising strength under severe tests. These sheets are a large size, 6 ft. by 3 ft. 8 in., which allows a 5 ft. 6 in. centre-to-centre for purlins, as against the old 3 ft. 6 in. Asbestos reinforced aluminium foil, a heat insulating material, is another product by this company. By means of a diverting gadget, they explain its superiority over 1 in. cork used for heat insulating.

By means of a kind of glass house, Messrs. J. A. King advertise concrete windows, or what they call "Glas-crete Patent Windows." Starting with a small standard pane, or panel, they can build up to a window opening of nearly any size. Reinforcing bars strengthen the concrete, and the glass is fixed in the ordinary way but with a special mastic.

The "Acfirb" portable vice holder is worth a special look. It might easily be

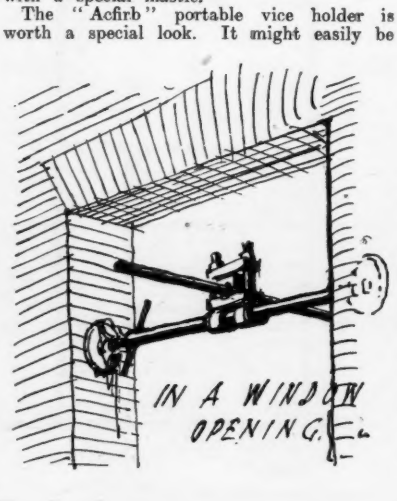



FIG. 3.

mistaken for a stunt invention, but, on the contrary, it has undoubtedly come to stay. It eases plumbers' and electricians' work and fits conveniently into door and window openings (Fig. 3).

Various companies make a vigorous show with robust concrete mixers. There are "Liners" and Parker plant among others.

An attractive house with "Esavian" windows conveys an appropriate feeling of the open air and of spaciousness.

I mentioned gas water-heaters last week, but there are a great many more heaters to see and some of them very beautifully designed. One feels that a considerable amount of study has been conscientiously devoted to this particular kind of article.

The "Marquee" sun-blind is a most pleasing, if small, exhibit. Its makers made the satisfying sun-blind over the terrace restaurant of the Dorchester Hotel, but at Olympia only one little curved sun-blind is shown. It is sectional and pulls up very conveniently on cords.

Messrs. Frederick Braby & Co., Ltd., show their dovetail steel sheeting, which is keyed for plaster or cement, and is specially useful for curved walls.

It is important to watch slate these days. Slate Slab Products, Ltd., exploit it for

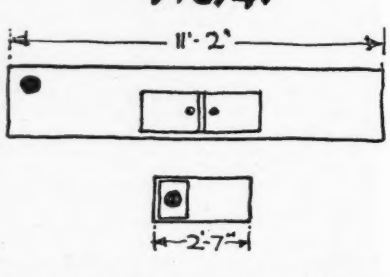



FIG. 4.

interior decoration by applying a scientifically stoved colour surface. The finished product is particularly good for fireplace surrounds, bathrooms and other places subjected to heat, and, of course, the material is very enduring. It could be a good decoration left in the natural state if the colour be clear. The company show an interesting "split surface" which exposes the close lamination of the slate, and this is sprayed with electro-plating.

The General Electric Co., in a five-unit stand, show "everything electrical for the building trade." There is a new elaboration of the push-button indicator system with red lights in convenient places, instead of pendulum indicators in the kitchen. This saves servants much trouble. There are diminutive "Jamb" electric fires which hitch on to a wall for the purpose of warming up "Darby and Joan" when they sit shivering beside an ordinary but inadequate fire. New electric fires have reflectors shaped to a parabola—apparently the new scientifically perfect shape for reflection. There is "Osira" flood-lighting, claimed to be two and a half times as efficient as ordinary Tungsten filament lighting. The newest electric cookers look smart. It is pointed out that, like motor-cars, cookers are subjected to continual improvement, and new "models" replace the old ones nearly every year. The last of the five rooms is given over to light fittings, some of which have very clean modern design.

*The Builder* stand, together with those of its contemporary magazines, make up, as a whole, a particularly impressive section of the exhibition. One feels that the Press is keep-

ing very close to the march of events, and missing nothing.

One item by the South Metropolitan Gas Co. particularly caught my attention. This was a gas refrigerator, a comfortable little white box on legs with apparatus underneath. It is said to be cheaper in initial cost than an electric refrigerator, and burns only one-pennyworth of gas a day.

"Twisteel" reinforcement, of high-tensile steel, has been used principally in roads, and is now being used more and more in concrete buildings. It competes against mild steel rod reinforcement, than which it is claimed to be 50 per cent. stronger, and, therefore, is lighter to use. Because of its twist it is very adhesive to concrete.

The stand of the "Savestane Sinkunits" will delight anybody with an eye for form. It is long and sleek and metallic. It shows metal-sunk sinks which, they say, "never stain, have no cracks or crevices to harbour dirt or worse" (see Fig. 4).

The exhibitors are to be congratulated on a fine display, and it is to be hoped that the next twelve months will be a period of success for them.

*(Concluded.)*

# EXHIBITION ARRANGEMENTS

## PROGRAMME OF FUNCTIONS.

Friday, September 21.

Chartered Surveyors' Institution. Visit.
Land Agents' Society. Visit.
Garden Cities Association. Meeting.
Architects' Ball.

Saturday, September 22.

Association of Architects, Surveyors and Technical Assistants. Visit.
Incorporated Clerks of Works Association of Great Britain. Visit.
Lecture in Minor Hall, at 6 p.m., entitled "How a Building Goes Up," by Mr. G. W. Harris, followed by a film entitled "Euston House." Mr. W. H. Hamlyn, A.R.I.B.A., Chairman.

Monday, September 24.

South-Eastern Federation of the Brick Trade. Meeting.
Ballast, Sand and Allied Trades Association. Meeting.

## POPULAR LECTURES.

The following programme of free popular lectures, each starting at 6 p.m. and lasting an hour, is to be given in the Minor Hall (entered from the Gallery) at the Building Exhibition at Olympia :—

Saturday, September 22 : "How a Building Goes Up." By Mr. G. W. Harris, Ex-President of the Incorporated Clerks of Works Association of Great Britain. Illustrated by cinematograph film.

Tuesday, September 25 : "The City of the Future." By R. A. Duncan, A.R.I.B.A. Illustrated with lantern slides.

## STEEL FOR BUILDING.

A luncheon was given, on September 13, at Olympia, by the British Steelwork Association, when a large number of architects and engineers were present.

The chair was taken by Sir Charles Wright, Bt., K.B.E., C.B.E., who referred to the assistance which steel could give in slum-clearance and rehousing work. The British Steelwork Association could, he said, make a most valuable contribution in building components on standardised lines. The vermin- and fire-proof house had been given considerable prominence in the slum-clearance programme, and in such components as doors, window frames, skirting boards, picture rails, steel cupboard equipment, etc., all of which were proof against shrinkage, cracks and crevices, a useful range of products could be put at the disposal of the building authorities.

Mr. Francis Lorne, F.R.I.B.A., referred to the extended uses of steel. He could remember, about twenty-five years ago, being with a firm in London which erected a small block of flats in the West End on a steel frame. It must have been among the first of the buildings of this type to be constructed in this way. Hitherto, they had been accustomed to building walls of strong materials, sufficiently thick to carry the load of the building, and there for the first time, for him at least, and also the firm for which he was working, they were changing the form of construction and carrying the entire load of the building on a steel frame. As he looked back upon it he could remember very little difference in the general design of the building from the older type. The walls were almost as thick as they would have been in the old type, and the windows were almost as small, and in the twenty-five years or so which had intervened very little advance had been made by the designers upon what was done at that time, except that the use of the steel frame was to-day much more prevalent than it was at that time. Nearly all buildings to-day, as might readily be observed, were carried on a steel frame, but the designers still tended to clothe it with stone, brick and wood traditional forms, with architectural columns which carried nothing, with cornices which did not throw the water away from the buildings any more (because the various councils would not allow one to do this), and with small windows which they thought added to the architectural value of the design but which only succeeded in excluding the light.

Most of our buildings to-day were constructed to last for much too long a period of time. The average lifetime of a building in London was approximately 100 years, and the change in 100 years in both the social and economic life of our people was far too great for any architect to be able to visualise the form of life a hundred years hence, with the result that for at least half of the lifetime of the building it was a misfit. We would have to develop the attitude in the future towards our buildings which we had grown in our generation to accept for the clothes we wore, the cars which we drove upon the land, the ships we sailed upon the sea and the aeroplanes with which we flew in the air. In other words, we must develop the habit of building buildings to suit the requirements of our own generation and leave our children to design buildings to suit themselves. That would mean that buildings must be erected much more cheaply and with a good value in re-use. By that he meant that the average building to-day, constructed of brick and stone, had very little value in re-use, whereas the building erected in steel could be taken down, re-manufactured and re-erected much more easily and economically to suit the changing demands of each generation as it came along. For that purpose it was difficult, at least in our generation, to find a material which will suit these purposes better than steel.

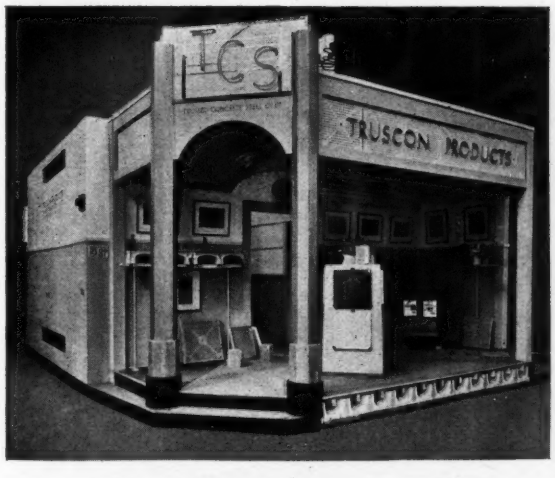
## LONDON, PAST AND PRESENT.

In the course of a popular lecture on September 13, Mr. E. R. Jarrett, A.R.I.B.A., having dealt with the historical development of London, said that at the beginning of the nineteenth century a great spurt in building took place, and, far from flagging, this spurt appeared to be gaining greater impetus every hour. With the introduction of easier and more rapid means of getting about, more and more districts were being opened up, and more and more populated became the county of London. We must expect it; we could not stop it; but what we could do was to see that the present and future development was better organised than it had been latterly. With proper care and supervision, impelled by an educated public opinion, we might see development which would do this age credit; without it we should see the untidy, shabby, cheap, slipshod mess spreading like a horrible swamp in ever-widening circles around us. It was for the younger generation to see that they made their effort in the right direction.

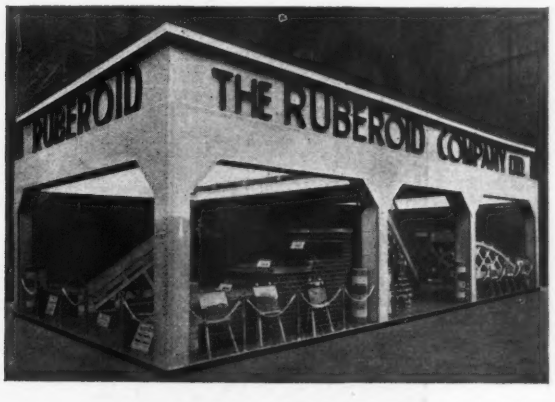
## CERTIFIED CARPENTERS AND GUILD OF BRICKLAYERS.

On Saturday, September 15, the members of the Incorporated British Institute of Certified Carpenters visited the Building Exhibition at Olympia, and afterwards, by invitation of Mr. H. Greville Montgomery, they and the members of the Guild of Bricklayers sat down to tea.

Mr. George Ayres, in proposing that a vote of thanks be given to Mr. Montgomery, said that although ten years ago, when he first visited the Exhibition, he had thought it perfect, yet it had since been better every time. Besides bringing together the man who wanted to buy and the man who wanted to sell, the Exhibition did a great work by making the man in the street what might be called




TRUSSED CONCRETE STEEL CO., LTD.'S STAND.




THE RUBEROID COMPANY'S STAND.

" house-conscious." There were thousands of people living under conditions they should not be living under, and it was necessary to create in them the desire for something better. Recently he had been visiting a slum clearance area and had been accosted by one of the inhabitants with a request: " Come and look over my place." The house and street had proved, on inspection, to be very little better than the slum exhibited in the Building Exhibition Gallery. He had expected the man to say: " I am glad the people you are concerned with are going to do something." But instead of that, the remark had been: " I have lived here 30 years and am quite contented as I am. Why don't you leave us alone?" This illustrated one of the difficulties of the housing problem, and it was only to be overcome by setting before people a different ideal and making them wish for better conditions than they had now.

Mr. J. H. Howarth, who seconded the resolution for a vote of thanks, said that bricklayers were taking part in a great movement affecting the social life of the country. The Government had a scheme to build 250,000 houses in five years, but that number had been built in one year. This was very creditable to the building trade, and, although many of the houses might not be all that could be desired, they were generally greatly in advance of those built 40 years ago.

Mrs. E. W. King, on behalf of the ladies present, supported the resolution, which was heartily accorded.

## GUILD OF BRICKLAYERS.

A meeting was held at Olympia of the Guild of Bricklayers on Saturday, September 15. Mr. J. H. Howarth presided.

In the course of a brief address the Chairman said he was a practical bricklayer, having served his time to the trade and been in it 37 years. During that period he had seen a tremendous change come over the personnel of the trade. When he was an apprentice one of his jobs had been to go out morning and afternoon, get some gallon bottles filled with beer, and take this round for the bricklayers to drink. To-day the apprentice did not take beer but tea, for the modern bricklayer was sober as well as industrious. " Switching " had been a practice in vogue when he was a lad. He did not see any now, but in those days gangs of bricklayers would endeavour each to lay more bricks than the other; and the gang which succeeded in doing this was said to have " switched " its rival. Technical schools in those days were only just beginning; he had got his own technical education at classes held in the evening by the Rochdale Pioneers, and paid for by the Education Committee of that Co-operative Society. In the large towns in those days there were mechanics' institutes, and these were forerunners of the craft schools and technical schools of to-day. At the present time boys were educated in elementary schools until they were 14 or over, and should obtain a very good basis for understanding what life meant. What were the present generation of bricklayers doing? Were they proud of their craft? Did they really believe that as bricklayers they had a right to a status in the building trade equal to that of any other craftsman in that trade? If there was anything that prevented a man getting on in life it was lack of self-respect, having what psychologists called an inferiority complex. But he was afraid many bricklayers had this, and allowed members of other crafts to dominate them as charge hands, foremen and so on. What was there in the building trade that a bricklayer should not understand as well as any other man? Why should not his intellectual abilities and general culture be on as high a level as those of a joiner or plumber? If bricklayers were to have a general understanding of their craft they should know what part they took in the industry. Bricklayers had a real place in the building industry, and there was not the slightest need for them to play second fiddle to any other craft.

STAND OF KURT ERLACH, LTD

## THE HOME OF TO-MORROW.

A lecture on " The Home of To-Morrow " was delivered by Mr. F. E. Towndrow, A.R.I.B.A., at the Building Exhibition on Tuesday.

The way we lived, the conditions under which we lived, and the materials with which we built, were, said the speaker, always changing, but it was only when the changes become so considerable in some aspects of living in relation to other aspects of living, that we noticed the lack of harmony and then tried to do something about it. First of all was the way we lived. This was different from that of our forefathers. The home was not an important part of our mental make-up as it used to be; family ties were not what they used to be; the conception of home as a close and abiding thing had changed to a point of view which looked upon it rather as a convenient machine or construction in which one could eat, sleep, or exist for a few hours per day. The general conditions under which we lived were different. Our interests were wider, or at least more diffused. With a modern motor car, homes seemed to be places in which one could conveniently " park " oneself (with the car), when there was nowhere else to go. Mass entertainment, such as the cinema, had taken the place of home entertainment. Restaurant and casual feeding had, to some extent, taken the place of the family banquet.

Moreover, in these general conditions we had to consider the important social changes which logically reduced the number of persons willing to act as menials and servants. In the course of time, the domestic servant must either go out of existence, or must be regarded as a qualified professional person like a secretary, with an equal social status. And over and above everything, there were the operating forces, social and economic, which forced up the standard of living and forced up prices, so that space in houses and bulk in materials had to be reduced. Thus the modern attitude towards the home tended to become more and more scientific and less and less sentimental. " The home is a machine for living in," said Corbusier, and although this was only partly true, it was true in the sense that the home of the future should be so designed that it was able to run like a machine and give the minimum of bother.

With such an immense variety of things to occupy our minds, we did not want to be bothered with the encumberances of large houses, furniture, pictures, vases, bric-a-brac and other personal effects. We wanted our minds to be left free for thinking, even if it was only for thinking about nothing in particular. In fact, we did not want to be bothered too much by the mere mechanism of living. Assuming that we were on this world for some sort of purpose, it was likely that the business of cooking, eating and keeping houses clean were purely incidental to this purpose. They were not ends in themselves, at least not to the modernly-minded man—although some house-proud women might regard them as the be-all and end-all of their existences.

STAND OF CUPRINOL, LTD.

Assuming that this tendency for the unencumbered freedom of the mind was likely to develop, one could see that in the future our houses would be as plain and as simple as possible. They might be quite negative, they might have no beauty as we ordinarily understand it, they might be just boxes or plain suites of rooms in huge blocks of flats. But would this matter? Considering the hopeless muddle humanity had made in trying to create individualistic architectural scenery along our streets, with each man striving pathetically for beauty, only to achieve muddle and outdated vulgarity, it might be better to have this plain, machine-like, negative background for our lives. But even machines had a certain beauty, in fact all things which were fit for their purpose had a certain beauty, and so might the city and the home of the future have this beauty. It would be a beauty of the mind rather than the heart; we would produce those things because they were good or necessary for us, and then afterwards we would come to regard them as beautiful. For instance, in our cities, if we could imagine them planned properly for the needs of traffic, and so arranged with decent open spaces for quiet and good health, immediately we should have a more beautiful city. And then, if we thought of the individual houses as being harmonious with the city as a whole, even if they had little or no individuality in themselves, our minds would be happier. We should not worry because our own little place, "Balmoral" or "Dunrovin," was without its gables and porches, because we would say: "Thank goodness, the other four or five million people like ourselves are managing without their gimcrack, half-witted, half-timbered gables and porches." Such relief in the mind as we went along our streets would be tremendous. Moreover, we should be out and about so much that we should not have very much time to notice whether the Tudor lounge of "Dunrovin" was real Tudor or only faked.

To come down to the type of home which he (the speaker) visualised for the immediate future, there were all sorts of possibilities. There would be the large blocks of flats or communal dwellings, spaced as far as possible apart, so as to allow gardens and playgrounds. These would be run on a communal basis in respect of heating, hot water services and probably cooking. With the servant shortage and the larger number of women taking ordinary employment, cooking and other housework would be reduced to a minimum. Already the large kitchen had gone out of existence. Already kitchens were being designed as little machines. There was no longer any necessity to look upon the kitchen as the housewife's sitting-room; better for her to keep out of the kitchen as much as possible. The saying that "woman's work is never finished" should be a thing of the past, for in the modern home the average amount of housework should be completed within two or three hours of each day, and even those two or three hours, in the course of time, would be practically eliminated. Just think of the motor car that required two or three hours' attention every day before it could start!

Our most important problem in respect to flats was the simple one of children. If people were to continue to have children, where were they to have them and where were they to keep them? Thus very soon we must introduce legislation insisting that all blocks of flats have ample gardens, playgrounds, roof gardens, and sun balconies, otherwise our nation might go out of existence. Yet there must always be space allowed for the individual small house standing in its own grounds. The ideal method would be to reduce the vast sizes of our great cities by breaking them up into smaller cities or by building satellite towns. That would mean the complete planning of England from Land's End to John o' Groats, and it must come. And in respect of the individual house, we might have to reorganise our preconceived notions. We must ask ourselves "What do we do inside these dwellings? Where and how do we sit, sleep and eat, and *are* there no better ways of carrying on these functions?" For instance, at the moment we had a convention which demanded that we should go upstairs to sleep (unless we happened to be living in flats or bungalows), and that we did our cooking on the ground-floor, so that the smell of cooking percolated through the whole house, including the bedrooms. We might find it better to cook and eat on an upper floor and go downstairs to sleep. Moreover, at the moment we had certain curious conventions in sub-dividing the habitable space of a dwelling into dining-room and drawing-room. Most of the living went on inside the dining-room and the drawing-room, the show piece of the house, was rather like a museum piece, which was taken out and dusted on occasions. Its space was generally wasted. We had got to consider how we could use the available space in a habitation to the greatest advantage.

## AWARDS FOR STUDENTS' WORK.

THE judging of students' work at the Exhibition took place on Friday last, and the results are as follows :—

### Army Vocational Training Centre, Aldershot.

BRICKWORK.—Tylers and Bricklayers prize of £5 5s. awarded to Lance-Corporal W. Morgan, K.R.R.C.; Corporal G. Gibbinson, the Royal Scots Greys; Private J. Dailey, the Lincolnshire Regiment.

PLUMBING.—Pewterers' Company.— £1 each to the following :—Private E. Langley, Royal Tank Corps; Corporal D. Davies, the King's Regiment; Lance-Corporal A. Butcher, the King's Regiment; Gunner G. Thornton, Royal Artillery; Fusilier J. Martin, the Royal Fusiliers; Lance-Corporal A. Richards, the King's Own Royal Regiment

Pewterers' Company.—Special prize of £5 awarded to Corporal H. Champion, the Royal West Kent Regiment.

Promoters of the Building Exhibition.—£5 to Gunner Fortune, Royal Artillery, and Guardsman Hodge, Grenadier Guards, for smithy work.

Promoters of the Building Exhibition.—£5 for the general lay-out of the stand.

### Northern Polytechnic.

Pewterers' Company.—£6 for plumbing.

Tylers and Bricklayers.—Four diplomas for brickwork.

Promoters of the Building Exhibition.—£2 for joinery.

### L.C.C. School, Brixton.

Pewterers' Company.—£3 for plumbing.

Promoters of the Building Exhibition.—£1 awarded to J. R. Broughall for painting on wood.

### L.C.C. School, Hammersmith.

Pewterers' Company.—£3 for plumbing.

Promoters of the Building Exhibition.—£1 for joinery.

Tylers and Bricklayers.—Diplomas for brickwork.

### Kingston Technical College.

Pewterers' Company.—£1 for plumbing.

Promoters of the Building Exhibition.—£1 for brickwork.

### Chiswick Polytechnic.

Promoters of the Building Exhibition.—£5 for the general lay-out of the stand.

### Trades Training Schools.

Masons' Company.—£5 5s. and a silver medal awarded to D. F. Whythe for the best exhibit of masonry.

Painters' Company.—£5 5s. awarded to J. L. Sander for the best graining and marbling.

Pewterers' Company.—£2 for plumbing—£1 each to exhibits 1 and 10.

Promoters of the Building Exhibition.—£5 to Arthur Pyne for joinery.

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### The R.I.B.A. Intermediate Examination.

The following are the dates on which the forthcoming R.I.B.A. Intermediate Examination will be held :—November 9, 10, 12, 13 and 15 (last day for receiving applications, October 9).

## REVIEW OF EXHIBITS

We conclude below our review of some of the more interesting exhibits at the Building Exhibition. Other notices were given in our two preceding issues.

### Aerostyle, Ltd., B.16.

A full range of "Aerostyle" spray painting equipment is here shown, suitable for every class of finish and decorative effect for the building and structural trades, including both electrically driven and petrol-engine-driven portable plants, ranging from small ¼-h.p. electric sets for light duty to 5-h.p. sets for large surface work of a heavy character. Demonstrations are carried out daily on the stand.

### Aga Heat, Ltd., L.215.

The Aga cooker, which is claimed by this firm to be a most economical heat storage cooking stove, is on view. Fitted with a tank containing 10 gallons of hot water for kitchen use, this stove is designed to burn very little coke. The S.B. 21 model offers increased capacity over the Standard Aga, and is fitted with an extra cooking oven, and a large compartment for heating plates, etc. The cookers exhibited embody many recent improvements. These stoves are fully guaranteed.

### Ascot Gas Water Heaters, Ltd., P.264.

The multi-point gas water heater, here exhibited, answers the need for a constant hot-water supply, cleanly, easily and economically. The heater supplies hot water to bath, basin and sink, instantaneously and in any quantity, simply by the turn of a tap. The apparatus, which is cheap in installation and maintenance, has been used in a great number of houses, housing schemes and blocks of flats. The heaters can also be connected as an alternative to existing coke-fired hot-water systems.

### British and Colonial Chemical Co., Ltd., Gallery Bay 67.

The range of "Kleno" products on this stand are of special interest to architects and builders, particularly "Klenoex" and "Klenostrip" paint removers. They are self-operating, non-inflammable, non-acid, and non-caustic, and do not raise the grain of wood or soften it. They operate on a time factor, and as they are always under control their action can be arrested at any point merely by washing off the surface with water, thus saving the undercoating and preparing it for the application of new paint.

### The British Plaster Board, Ltd., C.31.

This firm's exhibits consist of plaster-board materials, such as the "Thistle" plaster-board lath and the "Paramount" fireproof wallboard, which are being increasingly used for a variety of purposes in modern building construction.

### Walter Carson and Sons, Ltd., K.199.

The exhibit takes the form of sections of wall, showing the actual finishes of this firm's gloss and flat wall paints, together with other special finishes that they make for this purpose. A variety of panels is also exhibited, including a number of proprietary articles manufactured by the company. Their reception rooms will be found in Gallery Bays 80 and 81.

### Cheltenham Shopfitting Co., Ltd., H.167.

The manufactures on exhibition by this company are shopfronts and fittings, showcases, signs, etc., in wood and all metals. The firm specialise as museum, bank, library and store fitters. Some very interesting examples of modern shopfronts in patent tubular sections, both bronze and stainless steel, are to be seen, together with examples of drawn metal sections for shopfront construction, and a shopfront fitted with a special "non-reflecting" window.

### W. H. Colt (London), Ltd., B.6.

Colt Canadian cedar wood tiles, known in Canada as shingles, are to be seen on this stand. These tiles are claimed to be ideally suited to the English climate. In Canada,

extremes of heat and cold and prolonged spells of wet weather are much more severe than in this country, and about 75 per cent. of houses there are being roofed with these tiles. A life of upwards of 60 years is claimed for these shingles. A further exhibit is the "Colt" cowl, which is simple to fit as it is merely slipped into the top of the chimneypot and strapped down with wire.

### Colthurst, Symons and Co., Ltd., H.157.

The principal exhibits of this company consist of coloured sand-faced and coloured glazed hand-made roofing tiles, in a range of patterns and shades suitable for all types of buildings, and should be very interesting to all connected with the building trades. The structure of the stand, as usual, is charmingly designed.

### Cork Insulation Co., Ltd., C.47.

"Eldorado" cork tiles are shown here in several distinctive designs as flooring and wall panelling in conjunction with "Eldorado" cork tile coved angles. The cork tile staircase finish produced by this firm is a treatment for wooden or concrete stairs, and is shown on a full-sized model of a staircase. A model roof demonstrates the unequalled efficiency of "Eldorado" compressed cork slab as a means of preventing condensation, and of keeping the temperature of a building at an equable level.

### Eagle Range and Grate Co., Ltd. (Radiation, Ltd.), B.14.

This stand exhibits a display of ranges and grates suitable for all requirements. The "Eagle" Premier and Continental ranges are shown, together with a good display of "Eagle" combination grates, including the new N.C.11, which is shown working in the Low Oven, Two-Room and Bijou series. In addition, the "Eagle" boiler grate is exhibited, as well as the new "Eagle" gas-coke grate, also working. Many of the exhibits are finished in the new "Eagle" coloured porcelain enamel.

### Evos Doorways, Ltd., Q.279.

This firm, which are specialists in English and imported Columbian pine doors, Swedish redwood and solid oak doors, are exhibiting a number of flush veneer doors, including "Soflush" solid flush doors and reinforced lightweight flush doors. Examples from all types of doors, and especially fitted doors with many varieties of modern bakelite lock furniture designs, help to make a very interesting stand.

### Joseph Freeman, Sons and Co., Ltd., C.46.

A new range of synthetic finishes, the "Cementone No. 7," which incorporates a universal primer, and can thus be applied to new or old cement or plaster, wood, metal, brick, asbestos-cement, or, in fact, almost every conceivable type of building surface, is the feature of this stand. Those who have seen the Empire Swimming Pool at Wembley may know something of the possibilities of this product: a visit to the stand should give a much fuller idea of its versatility. Other examples of the "Cementone" range comprise such diverse and interesting specialities as "Cementone No. 1" permanent colours for cement; a waterproof surface composition, known as "Cementone No. 9"; a surface tinter for asbestos-cement ("Cementone No. 10"), and a line of waterproofers—both integral and surface-applied.

### N. Gerver, M.229.

On this stand a variety of timbers are being exhibited, a feature being made of Japanese and American hardwoods in all thicknesses. Plywoods in birch, mahogany and oak, in all thicknesses, are shown. This firm is making a speciality of oak plywood cut-sizes, which will save expense on the job. Hardwood mouldings and strip timber for panelling: flush doors in mahogany, oak, walnut and teak, also of Canadian red cedar shingles, complete the exhibit.

### Hoyle, Robson, Barnett and Co., Ltd., F.118.

One of the more interesting exhibits at the Building Exhibition is that of Messrs. Hoyle, Robson, Barnett and Co., Ltd., who are showing their "Glazement" cement cold glaze on the C.M.C. stand (F.118). Several panels treated with this glaze are displayed and give an excellent idea of the types of surface obtainable with "Glazement." This glaze has the particular merit of being applicable direct to a Portland cement-rendered wall, shuttered concrete or cemented brickwork. The surface given is hard and durable, nor does it stain. A damp cloth is all that is required to keep the surface clean. The finish is as permanent as the concrete backing. There is practically no limit to the colour effects which may be secured.

### Imperial Chemical Industries, Ltd., S.303.

The exhibits on this stand include the "Pioneer" blocks, which are prepared from mineral anhydrite by aeration, and are inert both physically and chemically. They are supplied in thicknesses of 2 in., 2½ in., 3 in., and 4 in., and are light in weight, with high acoustic and thermal insulation. The "Pioneer" plaster, another product of the company, possesses extreme hardness, durability and freedom from crazing; the fast-setting grade is suitable for admixture with sand for backing coats and for gauging with lime mixes. The "Pioneer" Portland cement and "Steelcrete," to which Casebourne's waterproofer has already been added in the works in correct proportions are shown in the form of Casebourne's waterproof cements. Casebourne's coloured cements are a range of permanently coloured cements prepared from "Pioneer" Portland Cement and "Steelcrete." "Limbux," another exhibit, is a hydrated Buxton lime made by I.C.I. (Lime), Ltd. It is a fine dry powder, produced by mechanical slaking.

### Lacy-Hulbert and Co., Ltd., Gal. 2.

On this stand is to be seen a variety of spray-painting equipment, including the "Boreas" machine. Other interesting plant shown by this company are the air and fluid lines, air purifiers, gas masks, spray guns of various types, and pneumatic paint scrapers and scaling tools.

### G. Maile and Son, Ltd., C.28, 29 and 30.

On this stand there is an attractive exhibit of ecclesiastical craftsmanship and furniture, as well as garden ornaments and sculpture. The ecclesiastical and memorial sculpture is in silvery grey Cornish granite, Hopton-Wood and other durable British stones. Mural tablets are in Derbyshire alabaster, marble, brass, and wrought bronze, with hand-engraved Roman lettering. Portrait plaques are in low relief, including one in bronze of the late Lord Northcliffe. Of church furniture and stained glass there are some good examples, including a carved oak eagle lectern, font and altar cross, and a stained-glass window of rich jewel-like colouring. There is a selection of some charming garden figures, for use as bird baths, sundials, etc., carved in solid stone as well as in reinforced cast stone.

### Nautilus Fire Co., Ltd., R.287.

This stand consists of an exhibition of the "Nautilus" gas flue blocks, marble and cast-iron plaques in coloured finishes, suitable for the "Sunsquare" and "Panella" gas fires. The "Nautilus" coke boiler is also shown in a suitable setting with a gas cooker, together with a comprehensive display of geysers. The "Nautilus" coal grate is shown in an attractive suite.

### Nettlefold and Sons, Ltd., H.153.

This firm is showing for the first time a new tubular mortise lock, the "Guardian." This lock is of simple but effective construction, and allows considerable latitude in the design of the door. Suitable knobs and handles for use with the "Guardian" lock are shown in a variety of materials. The "Guardian" catch is a modified form for use where a lock is not required. The "Fort George" range of bakelite products has been extended to include a rim latch, a night latch, and mortise lock sets. The exhibits by this company include the "Fortress" door bolt, "Semprax" cast stainless steel door handles, "Bardsley" overhead door springs and "Nettleson" floor springs.

### Parker, Winder and Achurch, Ltd., M.227.

The exhibits of this company include the "Page" door closers, the "Major" for heavy doors, and "Minor" for light doors. In addition to the usual bronze and chromium-plated finishes, a whole range of cellulose-coloured finishes are available; almost any colour can be supplied to harmonise with interior decorations. "Page" door closers are neat and unobtrusive; and the "Major" is fitted with dual control, enabling both spring and check actions to be regulated, giving easy adjustment. The "Maisonette" lever lock sets shown are attractively designed lever handles, fitted with patent divided spindles allowing adjustment to various thicknesses of door from 1⅜ in. to 2 in., and two-lever locking latch with reversible bolt and patent steel action.

### Thos. Parsons and Sons, Ltd., G.142.

This exhibit is built on modern lines, the interior of which is in the form of a large room or hall devoted to the exhibition of modern forms of decoration, in which demonstrations in the use of paints are given at various times of the day. The stand, both inside and outside, is devoted to an exhibition of paints, varnishes, etc., such as "Parso-Glaze" for scumbling paint, "Water-tex" for plastic paint, "Cork-tex" for condensation preventative, "Parsolac" for synthetic finishes, "Endellier" enamel, "Lacreite" enamel, "Endelflat" enamel, "Unicote" flat wall paint, "Parso-Stone" for imitation stone paint, "Parlyte" for water paint, varnishes, stains, etc. This is a stand of high interest to the decorator.

### Quickstryp Chemical Co., Ltd., B.18.

The principal exhibits of this company are paint removers of "Quickstryp," the "one application" stripper; it is claimed by the company that it does not crystallise, but remains wet and working for 24 hours or more, and works right through 30 or 40 coats of paint, adheres to vertical surfaces, will not raise the grain of wood, and requires no rubbing down or filling afterwards. "Quicker-Stryp," a quick, non-inflammable stripper of thin coats of paint, varnish, enamel, etc., is also demonstrated.

### Rapid Floor Co., Ltd., F.122.

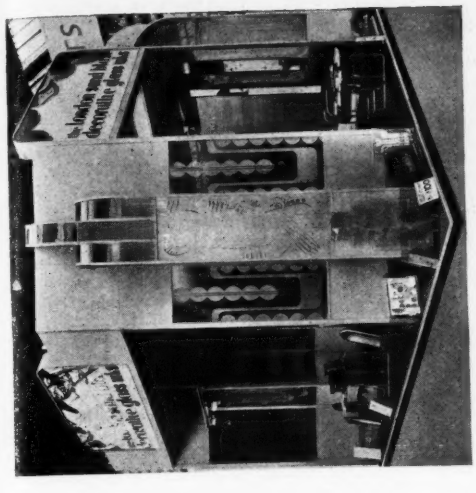
The "Rapid" precast floors, which are claimed to have attained popularity on account of their speed and simplicity of laying and economy for all types of buildings, are to be seen on this stand. The system comprises a series of pre-cast reinforced concrete beams, approximately I-section. The beams are laid side by side to form a cavity floor of proved resistance to heat and sound, a special feature being the interlocking top flanges, which form a grouting joint and effectively distribute local loads.

### Sharp Bros. and Knight, Ltd., P.272.

A large variety of combined door frames, such as the "SBK" standard casement windows, "Burton" range casement windows, and "Stormproof" casement windows, are being exhibited on this stand. The various woods used in the manufacture of these bay windows, gates, dressers and the "Enjo" doors and the proprietary make of casement windows include red deal, western red cedar, Columbian pine, and oak. The flight of stairs shown is in Japanese oak. The joinery is of a high standard.

### Shaws Glazed Brick Co., Ltd., J.177.

The exhibit of this firm consists mainly of an extensive range of modern faïence fireplaces, including several designs which are making their debut at the exhibition. Some of these are of a patent design embodying several important improvements. All the surrounds are of modern design, made in large pieces in high fired hard glazed faïence. The sanitary exhibit consists of sinks, lavatory basins, w.c.s and urinals.



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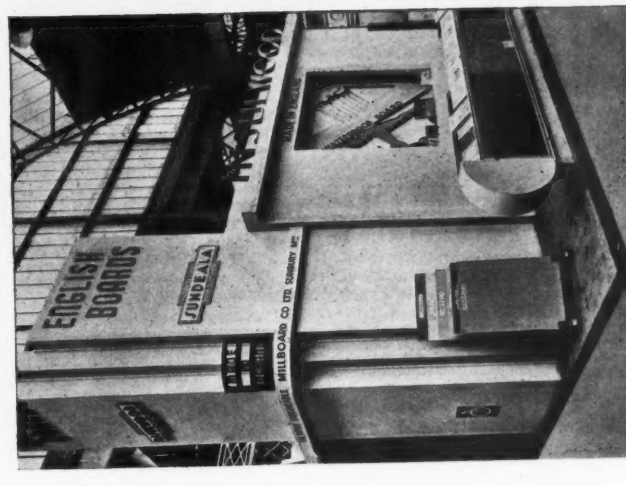


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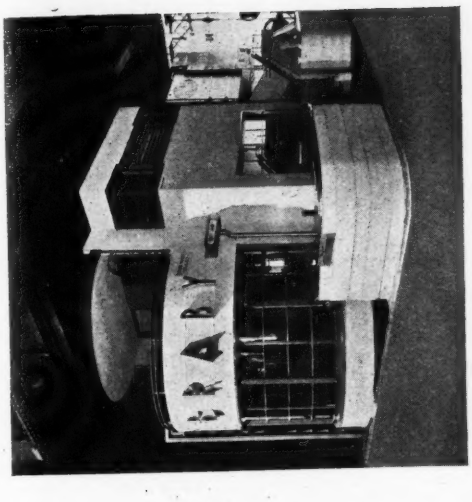


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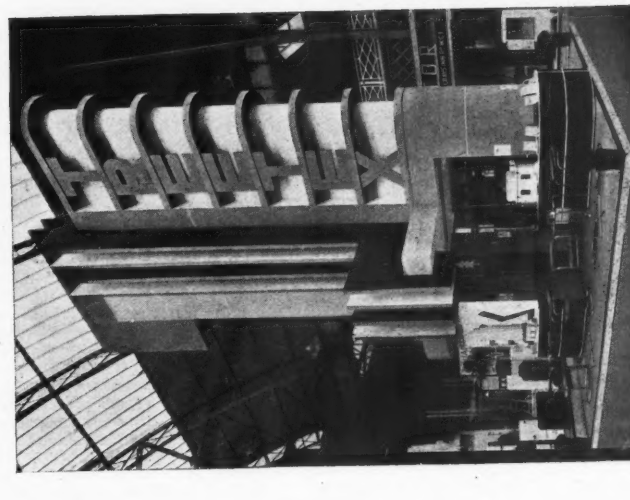
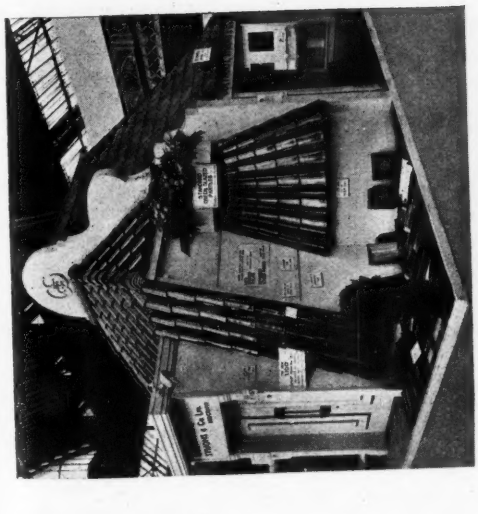
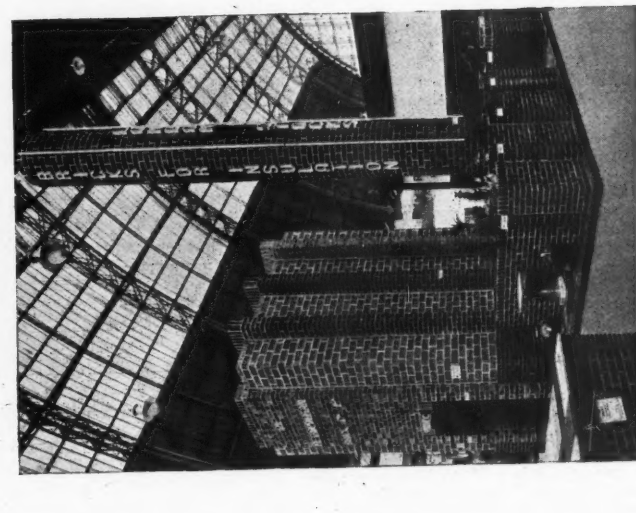



TREETEX, LTD.

STANDS AT THE BUILDING TRADES EXHIBITION.



COLTHURST, SYMONS & CO., LTD.



METROPOLITAN BRICK CO., LTD.

# PROGRESS IN BUILDING RESEARCH

THE Report of the Building Research Board for 1933 has just been issued by the Department of Scientific and Industrial Research. We refer generally to its contents in our leading article this week, and below we give details of some of the more important subjects of research now in hand at the Station at Garston, near Watford, Herts

### "Controlled Weather House."

Proposals are now well advanced for the construction at the Building Research Station, with the support of the Institution of Heating and Ventilating Engineers, of a "Controlled Weather House." Some years ago an experimental house was erected at the station for studying the heat requirements for houses built with various materials and heated by different methods. It was found, however, that the many variables in our climate influence the results to such an extent that the investigations could not be speeded up without some means of controlling meteorological conditions. A scheme has now been adopted for building an experimental room enclosed in a larger structure. The walls, floor and ceiling of the room will be made to typical designs, and outside weather conditions assimilated by controlling the temperature of the enclosing structure by warming and cooling panels in its walls.

### Sound Transmission Through Building Materials.

"An impediment to building progress," the Report states, "is the lack of data on sound transmission through the fabric of a building, floors, walls and partitions. The public is becoming more and more noise-conscious, and there is a growing demand for noise-resistant structures, partly due to the widespread use of gramophones and radio. We have been exploring with the National Physical Laboratory the possibilities of installing suitable accommodation for full-scale tests, and have endeavoured, at a conference with industrial interests, to see what assurance could be given that the proposed testing facilities would be used and that financial support would be forthcoming."

### Acoustical Problem of Cinema Theatres.

Problems attaching to the following are some of the questions of building acoustics referred for advice to the Building Research Station during the year:—The design of a "silence" room for auditions, a council chamber for a municipality in India, an open-air bandstand, and acoustical conditions in cinematograph theatres. "The conventional treatment of a cinema," the Report states, "with a deep balcony and some of the higher priced seating immediately below it, provides a rather difficult acoustic problem, since it is difficult to obtain adequate reinforcement by reflection. It is the unique characteristic of the talking film that such difficulties can be overcome by raising the volume of sound at the source, but this may well occasion distress to that part of the audience more favourably situated."

### Portland Stone.

A survey of the national resources of building stones is in progress. In connection with this work laboratory methods of testing the suitability of samples of Portland stone from the point of view of weathering are being evolved. Tests on samples from quarries are being checked against tests of stone of known history from actual buildings. By such laboratory tests it is now possible to differentiate between first-rate weathering stone and really bad stone. The results show, however, that there is a wide gap between, for example, a stone of good quality from St. Paul's Cathedral and stone of known inferior quality which has suffered serious decay in London during the last 20 to 30 years. An architect using stone of the best quality could have confidence in its weathering properties, but if he used stone from the second inferior group he could expect his building to look ruinous in a quarter of a century. Further work, it is stated, is necessary before it will be possible to tell an architect with certainty what period of useful life he can expect from stone intermediate between these two extremes. While tests on samples of British stone show that very inferior quality stone is not common, it is still obtainable, and there is reason to believe that it has been used for certain war memorials reported to be suffering from obvious decay. "It is clearly desirable," the Report states, "that the deposits of this type of stone should be located in the quarries, so that their use can be avoided."

### Stone Preservation.

Examination of buildings in the course of the year has provided, the Report states, "additional evidence in support of the conclusion drawn from previous experiments on waterproofers that the effective life of certain of the materials commonly employed as stone preservatives is limited to about 12-18 months. One instance provided a striking illustration of the view that treatment may sometimes even hasten decay. In this case the treatment caused the formation of a hard surface skin which blistered, and eventually began to flake off in such an unsightly manner that the owner of the building was obliged to incur the expense of removing it."

### Bricks.

Among the many investigations on bricks described in the Report research is carried out to discover the amount of soluble salts a brick may be safely allowed to contain. The capacity of various salts to cause trouble is very different. A brick containing 1-10th of 1 per cent. of water soluble magnesium sulphate (Epsom salts) would, it is stated, almost certainly cause failure in plaster applied to it; but an equal amount of calcium sulphate would be quite innocuous. "A further complication is introduced by the texture of the brick. If a brick is soft and highly porous through underfiring, water will easily gain access to any soluble material it may contain, and recrystallisation of these salts near the surface may cause flaking. On the other hand," the Report continues, "in a medium- or hard-fired brick of a dense texture, any salt that may be present will be less readily accessible, and the brick will also be more resistant to disruptive forces set up by the crystallisation of whatever salts are brought to the surface."

### Troubles with Brickwork.

Dealing with some of the problems concerning brickwork submitted to the Building Research Station for advice, the Report says: "Flaking and erosion of a large number of bricks in the walls of a large block of flats was reported, and the surveyors for the buildings sought advice as to treatment to adopt since the dilapidated appearance of the buildings was making it difficult to let them. The trouble seemed to be due to the use of a considerable proportion of soft, under-fired bricks, and it was extremely difficult to suggest a remedy short of cutting out the defective bricks and replacing by new ones. It had been suggested that the worst areas should be rendered in cement, but it was pointed out that a soft, crumbling brick was the worst possible background for a cement rendering, which must develop proper adhesion to the supporting masonry if it is to be successful. This view was upheld by a case recently reported where a cement rendering had failed badly in exposed positions on a new building, bringing away with it large flakes of brick. Here it was stated that the bricks were known to be of poor quality, and under-fired, but it was thought that the rendering would provide sufficient protection. In another important building a certain proportion of bricks were being eroded, and attempts had been made to make good by filling with cement mortar coloured to match the bricks; the cement mortar, however, tended to spall off, bringing with it flakes from the surface of the bricks."

### Damp Floors.

On the subject of damp floors the Report states: "It does not appear to be generally recognised that a solid concrete floor on the ground, even if well made, is always liable to be damp. The factor which determines whether or not there is trouble is the rate at which the moisture rising through the capillary channels in the concrete can be evaporated. Given good ventilation and a certain amount of heat, the moisture may be evaporated and conveyed out of the building as fast as it can penetrate the concrete. If ventilation is restricted—as, for instance, by storage of goods—then moisture will accumulate and the usual concomitants, fungus and mildew, may appear."

# LAW REPORT

CHANCERY DIVISION.

Before MR. JUSTICE FARWELL

## ALLEGED IMPROPER USE OF ARCHITECT'S PLANS BY BUILDERS.

Jackson v. L. E. Jones and Son.

This was an action by Mr. Burrough de Carle Jackson, A.R.I.B.A., of "Oak Beams," Montreal Park, Riverhead, Kent, against Messrs. L. E. Jones and Son, builders, of Riverhead, for an injunction restraining them from copying or using without the plaintiff's consent architectural plans or drawings made by the plaintiff and entrusted by him to the defendants for the purpose of building "Oak Beams," and from erecting any building which reproduced the artistic character and design of "Oak Beams." The plaintiff also claimed damages on the ground of infringement or wrongful use of his plans or any copies of them.

The defence was a denial that there was any copyright in the plans or drawings. Alternatively, the defendants pleaded that if copyright did subsist, at no material time were they aware of it.

Defendants admitted building a house called "Caerhays," at Seal, near Sevenoaks, but denied that it reproduced the original artistic character or design of "Oak Beams," or that it infringed the plaintiff's copyright. Defendants further pleaded that they were induced to build "Oak Beams" at a low price by representations made by the plaintiff that he would see that they got similar work, but he had failed to make good those representations.

Mr. Jackson gave evidence as to the details of the house "Caerhays," stating that it resembled his own, which was built in the Tudor style. He said that without his (plaintiff's) house, "Caerhays" could not have been built as it was.

Mr. Gervase Bailey, F.R.I.B.A., also gave evidence that in its main features and most of its details "Caerhays" was practically a reproduction of "Oak Beams."

Cross-examined, Mr. Bailey admitted that there were certain differences in the details of the two houses. A distinctive feature in Mr. Jackson's plans for "Oak Beams" was the staircase window. Such a design was, he thought, very uncommon.

Major Hugh Patrick Maule, F.R.I.B.A., also gave evidence as to the similarity in the special features of "Oak Beams" and "Caerhays," but with certain subtle differences in various details.

Mr. Lionel Cohen, K.C. (for the defendants), called Mr. L. L. J. Jones, who said he started business on his own account under the name of L. E. Jones and Son in April, 1930, and first met the plaintiff, Mr. Jackson, in October, 1931. He denied that he had ever in any way used Mr. Jackson's plans or drawings for houses he had built for other people.

Mr. George Robert Harvey, who prepared the plans from which "Caerhays" was built, examined, said that for that purpose he had no access to Mr. Jackson's plans.

In the result, his lordship gave judgment, dismissing the action with costs. After reviewing the evidence he said his opinion was that there was no ground for holding that there was any copying of the plaintiff's architectural drawings and plans.

# INQUIRY BUREAU

## QUESTION.

### "To Match Existing."

SIR,—Will you kindly let me know the scope of the above words when used in connection with a specification or bill of quantities of public works on a building contract? If no special mention is made of the necessity of making a special die or mould for a sill brick, would the words "as existing" cover that expenditure when the moulded brickwork in question is something which no brickmakers have in stock, and upon close inquiry is unique in design, the pattern not having been repeated for over a quarter of a century?

It is only fair to say that the usual "visit the site" clause was included in the specification, and that the site was visited, but from a more or less casual glance at the moulded work it was considered that a similar pattern might be found in the several lists of brickmakers throughout the country; the search was abortive, and special moulds had to be cast, which in my opinion should fall upon the building owners in the absence of any special mention of the necessity of obtaining moulds, at what has proved to be exceptional high cost, and out of all proportion to the value of the moulded work.

A. S. B.

## ANSWERS.

### Cracks in Bungalow Built on Clay.

[ANSWER TO "J. C.," SEPTEMBER 14.]

SIR,—The fact that the bungalow has been built eleven years indicates no radical fault with the foundations, but only a slight movement of the subsoil, which is always liable to occur. Many post-War houses built on clay suffer from such cracks. The usual remedy is to grout in with cement. This should not be done while the dry weather continues, but should be delayed until the moisture content of the subsoil becomes more normal. These cracks do not usually affect the structural strength of the building, as often only the surface is affected. The principal danger is that they admit moisture and frost, with the result that the cracks grow progressively larger until serious damage is done. Any external cracks should not be neglected; they should be examined and caulked up by a competent builder before the hard weather sets in.

W. E. W.

### Building Society Survey: Alleged Negligence.

[ANSWER TO "R. S.," SEPTEMBER 7.]

SIR,—My sympathies are entirely with "R. S." It appears he purchased a house through a well-known London building society and that he relied upon the report of the surveyor to that society, who passed the house as sound. Cracks have since developed and apparently continue to develop in the walls of the structure, and "R. S." desires to know whether he can hold the surveyor responsible for negligence in this connection. It would be useless to do so. There is no privity of contract, as the lawyers would say, between "R. S." and the society's surveyor; that is, there is no direct engagement between the two. I cannot do better than quote part of an article by Mr. Sydney J. Walter, chairman of the Fourth City Building Society, in the recent supplement of the *Daily Telegraph*, entitled "Points that House Purchasers should Study." He says:—

"Building societies lend money upon the security of the houses purchased through them. In this connection they receive expert advice from their surveyors. The fact that a building society is willing to lend money upon a particular house should not be, as it very often is, relied upon wholly as an indication of its value or its desirability as a purchase. Surveyors are engaged by, and act solely on behalf of, the building societies, and a purchaser should safeguard himself by obtaining an independent opinion or pursue his own inquiries."

G. E. KNIGHT.

# BUILDING AND 40-HOUR WEEK

OPPOSITION to the introduction of the 40-hour week, to restriction in the installation of new processes of production, to the eviction of women from industry, and to the compulsory retirement of workers at 65 years of age is expressed in a report which will be submitted to the national conference of the League of Industry, which is to be held at Great Malvern from September 28 to 30. The report has been drawn up by the Employment Planning Committee, which was appointed at the Buxton conference last year with instructions to "investigate all schemes for the encouragement of employment and a better distribution of employment."

Explaining why they not only do not recommend, but earnestly oppose, the introduction of the 40-hour week, the committee point out that at least 12 per cent. of our present employed workers, or about 1,250,000 in all, are engaged on producing for the export trade. "The introduction of a 40-hour week," they emphasise, "would endanger the livelihood of every one of these 1,250,000 workers; very greatly endanger it if the 40-hour week were introduced only in this country; and endanger it, though to a less serious degree, if the 40-hour week were legally introduced, and actually carried out, in all competing countries with lower standards than our own. If the wage-cost of a British article measured, as is now commonly done, in gold dollars is 50 and that of a foreign equivalent, which it just succeeds in beating, is 40, and if the additional wage-cost due to a 40-hour week is 10 per cent. in both countries, then the addition to the cost of the British article would be $5 and that of the foreign article only $4—a difference which may lose the British article its oversea market.

"Finally, we warn British workers that, whereas in this country it may be assumed that the decision to reduce the working week to 40 hours while paying the same wage would, if made, be carried out, no such assumption can be made with regard to certain important foreign countries which are competitors of ours in world markets. The formal institution of a 40-hour week in other countries might be offset by exceptions which really leave the old working week unchanged—e.g., that it be a 40-hour week on the average—a slippery proviso; while the control of organised labour over wage-rates, strong and effective in Great Britain, and very properly so, is weaker, or even absent altogether, in other important competing countries."

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AT their meeting at Dorchester on August 29, the Amalgamated Union of Building Trade Workers unanimously carried the following resolution:—

"That this Conference reaffirms its previous decisions in favour of the 40-hour week without a reduction in the weekly rate. To this end it considers the Executive Council should initiate a campaign among the membership explaining the need and desirability of the 40-hour week, and place a demand before the Master Builders."

# BUILDING TRADE WAGES

At their meeting on September 14, the executive committees of the unions of building trade operatives decided to apply for an advance of wages of 1d. an hour all round in England and Wales. A separate application has been made in Scotland. The form of the claim will be that the index figure on which the wage rates are based should be reduced from 78 to 65.

The figure of 78 was agreed by the National Joint Council for the Building Industry, and on this specified standard hourly rates of wages in London and in ten grades of districts were formulated. Variations of ½d. an hour in these rates are made in respect of each 6½ points difference between the datum figure and the average cost-of-living figure of a calendar year. The variations are decided upon at the January meetings of the Joint Council, and take effect in the following month.

The unemployment figure in the industry at the end of July was 16.9 per cent. This compares with 19.8 for July, 1933.

# ILLUSTRATIONS

(*Continued from page 499.*)

fied setting for the buildings of the Council. A square containing a formal public garden is suggested, with sufficient roadways to relieve the congestion at the cross roads and to leave the main traffic routes free and independent at all times when official functions take place in any of the buildings. Account has also been taken of the position of Swinton Church, and the area around it, so that it will group well with the proposed open space. The offices, the assembly hall and the sessions court are grouped around the "civic" approach, while the library building is placed at the end of the public gardens, where it will be quiet, out of traffic dangers to juvenile readers, and will enjoy a restful north outlook over the gardens from the reading rooms.

The municipal offices are planned to be a complete unity, to look balanced about the main approach axis, before the remaining buildings are erected. The main entrance is used by the Council and public visiting the rating office. All other departments are accessible from the "business" entrance in Partington-lane, where a separate car park is available. The offices are planned on ground and first floors only, to distribute weights as much as possible over the site, in view of its being undermined by coal workings. Six spare offices are provided and planned in positions where it is considered they will most likely be required. Spare storage accommodation is provided in the basement. Extension of the offices is arranged as a wing to the east, eventually to balance the south elevation about the entrance from the gardens. There would be no disturbance of the structure on any floor when extension takes place and an 11 in. hollow wall is provided for breaking through.

The estimated cost of the building, including drainage, heating, ventilation, electric light, fixed fittings, first decoration, the tower and clock and special foundations, is £45,150.

### A House at Thames Ditton.

The walls of this house are of brickwork, rendered on the outside with Portland cement finished with a wood float and twice distempered in "Duresco." The plinth is twice tarred. The roof is covered with Old Delabole slates in diminishing courses, varying in colour from grey to green and russet. The eaves project 18 in. and are boarded and painted white. Crittall's steel windows in wood frames are used.

Mr. G. Alan Fortescue, F.R.I.B.A., is the architect.

### A House at Richmond Park.

This house, which was illustrated by a water-colour at this year's Royal Academy Exhibition, is an economical one, with a compact plan and simple elevations. The walls are built with a cavity and faced with multi-coloured bricks, and the roof is covered with dark brown tiles. The accommodation provided consists of five bedrooms, a large drawing-room for music, small dining-room, kitchen and garage. Mr. Gordon Allen, F.R.I.B.A., is the architect.

### A Cottage at Midhurst, Sussex.

This little cottage was designed to suit special requirements. It is built with cavity walls faced with multi-coloured bricks made by the Sussex Brick Co., and the roofing tiles are dark brown, laid on counter-battens. The steel casements were supplied by Messrs. Hope, and the fittings by Messrs. Goslett. "Cullamix" is used for rendering the porch. The builders were Messrs. P. Oliver and Son, of Midhurst. Mr. Gordon Allen, F.R.I.B.A., is the architect.

# THE BUILDING TRADE

## MORE ESSAYS ON BUILDING SUBJECTS XII.

By J. R. TAYLOR.

### DETAILING FOR ECONOMY.—V.

#### Fireplaces.

WHERE a low first cost is the primary consideration, there is little that can be usefully said about the construction of bedroom floors for two-story houses. In such buildings, loss of life as the result of an outbreak of fire is of infrequent occurrence, and damage to material is or should be covered by insurance. If the floor be of joist and board construction and be properly trimmed round the chimney breast and hearth, fire is unlikely to originate in the floor if the hearth be properly formed, except it be the result of an electrical defect. But the occurrence of three separate fires, all coming directly under the writer's notice within the last twelve months, and all traceable to defective hearth construction, seems to indicate that an account of the circumstances will not be out of place. In each case the building was of comparatively modern construction. In each, ordinary bedroom fireplaces had been removed and modern grates with boxes on the hearths had been installed—in one, to meet the requirements of an invalid; in another, because a house had been altered so as to become a small shop; and in the third, to provide an upstairs sitting-room for a sub-tenant. In all cases, boarding had been put in the trimmed space to receive the hearth, and left in, and the box thus formed filled with sand and brick rubbish carrying a floated cement hearth having the appearance of solid concrete. Needless to say, such construction is dangerously bad, but it is much less uncommon than might be supposed, and in no ordinary circumstances should a new modern low-lying fireplace be put in to replace one of the older grates having the firebox above the hearth without a thorough examination of the method of construction.

The construction of a bedroom fireplace hearth is a simple matter if it is carried out at the right time. As soon as the joists are in position, and before the brickwork is carried any higher, the concrete that will receive floating and tiles should be placed and be carried on to the wall. Lightly reinforced, it would, when set, carry as a cantilever, but the writer prefers to use corrugated metal sheeting for the formwork, and to leave it in, with support at the edges. Another way is to use a ribbed reinforcement that will serve first as formwork, and then afford a key for plastering. The same type of reinforcement serves excellently to receive plastering, and at the same time carry pugging in wooden floors.

In some districts the by-laws make stipulations as to the strength (scantling sizes) of floor joists and as to their spacing, but in many others they are silent in respect to this matter. It is the writer's experience that in the great majority of cases there is sufficient "spring" in bedroom floors to affect in course of time the plastering to the ceilings of the rooms below. But the main cause of fracture of the plastering is the shrinkage of the timbers that must follow on the use of unseasoned timber, built in during wet weather or left exposed, and later hastily covered in long before the building has had time to dry out. Bridging does something to stiffen floor joists, but if it is added while the timber is swollen with moisture its value is reduced. A Liverpool architect who up to the time of his death some years ago had a very large domestic practice adopted a method that the writer has not seen used elsewhere. Alongside solid bridging he introduced a tie-rod threaded through the joists, and the rod was fitted with bolt nuts and plate washers at the ends. Floor boards were left loose to give access to the nuts, and these were tightened up at the end of the job and again at the expiry of the maintenance period. The writer would not go as far as this in ordinary cases, but the method was applied to a mansion built in 1902, and the ceilings, some of which were decorated, are without flaw; but the use of thoroughly seasoned timber, aged putty lime, a high proportion of hair, skilled craftsmen, and proper timing of the stages, had probably more to do with the good results than had the tie-rods.

#### Partitions.

In many old buildings can be found partitions prepared to receive lath and plaster, so framed that were the floors below them removed they would still safely carry the roof or other load imposed upon them. Such partitions are seldom made use of to-day, nor in ordinary circumstances would they be economical. The lath-and-plaster partition, as ordinarily used, is still regarded by builders as being the cheapest form that can be used in domestic work, when a half-brick wall cannot be built for lack of suitable support. In various forms, slab or block partitions are now much more widely used than formerly, but a word of caution may not be out of place in regard to some. It is essential that breeze blocks should be thoroughly cured and that they should not be subjected to more moisture than they will receive from plastering. Consequently, partitions of this material should not be erected until the roof is on, and the necessary chases in main walls for bonding should be left open. There are some forms of hollow baked clay blocks that are much less affected by exposure to rain, but even so it is usually better to leave the erection of them until a late stage. A promising and comparatively new block is formed of fine concrete full of tiny cells caused by the use of chemical or mechanical processes in the same manner as those found in light-weight concrete. Early partition blocks were formed of plaster, reinforced with rushes, and in a post-office built about fifty years ago these, except on the staircase, have stood up remarkably well; but immediate attention to very small repair and regular painting has doubtless contributed to this result. Fibrous plaster partition slabs still find a place in the R.E. (War Department) Schedule, which has some significance, for methods and materials that do not give satisfaction are usually dropped after a time. On the whole, the writer has most regard for the hollow tile partition blocks from first-class manufacturers, for their limitations and behaviour are constant and can be definitely taken into account.

When door openings are formed in slab partitions the frames should be of a sturdy type and the jambs be carried up to and be secured to the ceilings. In the case of a hospital where this was not done, over a hundred doors had to be taken off and rehung with check action sprung hinges, because the banging doors loosened the frames and damaged the partitions. This was, of course, an exceptional case, but the fact that some manufacturers provide for the incorporation of reinforcing bars at openings indicates the necessity for thoughtful detailing. It is also desirable to make provision in advance for the security of fittings that are to be attached to the partitions, particularly if the brackets when loaded are likely to impose any considerable leverage.

#### Bathroom Floors.

Formerly in good work baths were placed on lead trays, the principal purpose of which was to catch and dispose of any water that might by a sudden movement be slopped over the edges of the bath. If they projected sufficiently to do this when placed under an unenclosed bath, the user was not unlikely to stub his toes against the raised rim. Bathing is now in some cases a less sedate proceeding than formerly, and it is considered to be desirable to form both wall and floor coverings of a material that is impervious to, and will not be hurt by, moisture, and on the whole to drain the floor. This raises a curious point where the outlet drains into a waste pipe head, for the pipe must be regarded as a waste, and consequently, where by-laws require traps, must be trapped. But a trap reliant on occasional water from the floor would be very liable to lose its seal. To guard against this a trapped floor channel might be employed, the bath discharging on the channel, but means of access to the trap would need to be provided, for the channel would usually receive floor washings also. It is not easy to decide on the best material to employ as a covering to a bathroom floor, for a cold material requires the provision of foot mats and slippers, and splashed water and condensation more or less imply footprints in the bathroom corridor. Wooden floors covered with rubber or linoleum would in such circumstances be subject to attack from dry rot. On the whole, a concrete floor finished in terrazzo or other joinless material against coved skirting may be regarded as safe and reasonably satisfactory, and the choice of rubber or cork matting may be left to the client.

#### Soundproof Floors.

In domestic building there is really no such thing as a soundproof floor; all that can be hoped for is a reduction in the volume of sound transmitted. In the last century pugging was commonly employed, and it often consisted of weak mortar mixed with two or three parts of chopped straw laid to a thickness of several inches directly upon the plaster laths. For better work, fillets were nailed to the sides of joists and boarding introduced so as to leave an air space over the plastering, and on this similar pugging was laid to within three inches of the top edges of the joists, or, if the joists were shallow, to within two inches. In some few cases the pugging was brought up level with the tops of the joists, but, in general, architects regarded this with suspicion. Slag wool unmixed with mortar gradually ousted mortar pugging. But in very good work the ceiling was independently carried on one set of joists and the flooring over on another set. And such places as libraries might be provided with two doors to the casings, one of which was covered with baize. Various quiltings are now available, and their makers are always willing to give advice on the best method of employing them under varying circumstances.

#### Ceilings.

To hang up bedroom ceiling joists to roof rafters is, in the writer's opinion, a poor form of construction, for if there is any yield under wind pressure on the roof the plastering is likely to suffer. It is better to introduce ceiling beams above the joists and strap with galvanised hoop iron, or in other ways provide suitable fixing. Ceiling joists are often called upon to act as ties to the rafters and prevent spread at the wall plates, but frequently they are not put in in single lengths, but pass on partition walls with little, if any, attempt at secure fixing. Where a cold water storage tank is housed in the roof space it should always be independently supported, and walk boarding should be provided. A trap door in a ceiling implies that at some time or another somebody will enter the roof space, and if the ceiling joists give under the additional load, the plastering keys at least will be broken.

*(To be continued.)*

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### An Old Oxford Inn.

It is now almost certain, we learn, that the "Blue Pig," the old inn in Gloucester-street, Oxford, for the preservation of which there have been so many appeals, is doomed to demolition. The City Council has been recommended that reconstruction is not advisable on the score of expense, and that the whole of the building shall be demolished in due course, and that the part of the site required for the widening of Gloucester-street be surrendered to the Highways Committee.

# THE BUILDING RESEARCH STATION

## QUESTIONS AND ANSWERS.

THE following abstracts of inquiries* represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for general application to all similar problems.

### Use of Expanded Metal Lathing for Plastering on Ceilings.

A firm of surveyors stated that, in order to avoid the possibility of ceilings falling or cracking badly, they proposed to use expanded metal lathing in place of the usual wood laths. Advice was sought as to whether this was likely to achieve the desired result, and whether any precautions should be taken to avoid staining.

REPLY.—Cases of fallen ceilings are the most common building troubles of which reports are received at the Station, and the great majority are found to be due to the shearing of the keys of a weak lime plaster. The plastering material it is proposed to use in this instance is not stated, but there is little doubt that this is of greater importance than the choice of lathing.

The traditional material for plastering on ceilings was lime and sand, with the addition of hair. A non-hydraulic lime has, however, no chemical set, and depends for hardening on drying out, and, subsequently, on the slow process of carbonation on exposure to the carbon dioxide in the atmosphere. If each coat is allowed ample time to dry thoroughly before the next is applied and is undisturbed by vibration during this period, adequate strength to support the ceiling can be obtained. In former times this was usually possible, and successful work was carried out in lime plaster. But under modern conditions, sufficient time is rarely allowed between successive coats for the development of strength and, in addition, the undercoat is frequently subjected to vibrations during its critical early life owing to the presence of other trades, such as plumbers, electricians, etc., while plastering is in progress.

As a result of the great number of reports received of failures of lime plaster ceilings, and taking into account the change in conditions of building, it is now recommended that for plastering on lathing on ceilings a material should be used which has a definite chemical set, and one capable of developing adequate strength at an early age. It is acknowledged that the failures usually reported occur in cases where wood laths have been used, and definite information on lime plastering applied to expanded metal lathing is not available. It is recommended, with expanded metal as with wood lathing, that a plaster having definite setting properties should be used rather than a straight lime-sand mix. It should, perhaps, be pointed out that the addition of hair in the proportions commonly employed nowadays provides little or no strength to the set plaster, its function being to assist in application by reducing droppings and also in the formation of well-shaped keys.

Satisfactory early strength can be obtained by gauging a lime undercoat with Portland cement or by using certain calcium sulphate plasters. Portland cement mixes tend to shrink in drying, and under unfavourable conditions they are likely to crack, and may even cause cracking of the key necks; such mixes, therefore, are rather less satisfactory than the calcium sulphate plasters, which may actually undergo a small net expansion during setting. Owing to the danger of corrosion, however, caution is necessary if calcium sulphate plaster is used on metal lathing. This danger will be referred to again below.

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Calcium sulphate plasters are of two different classes, (*a*) Anhydrous, (*b*), Hemihydrate (Plaster of Paris). Hemihydrate plasters are obtainable with retarded set, and in this form are suitable for use in undercoats. Only certain of the anhydrous plasters could be used in this way, and, in the absence of a British Standard Specification, or of any generally accepted classification, it is necessary to obtain the advice of the manufacturers as to the suitability of any particular plaster for use in undercoats.

If a less hard finish is required than would be obtained with a calcium sulphate plaster, and one which would probably be less expensive, lime may be used with a gauging of cementitious material. For this gauging, the retarded hemihydrate type of calcium sulphate plaster is suitable, but, owing to the accelerated set of the plaster when used in conjunction with lime, certain precautions are necessary. A note on the subject of gauging lime plasters with this type of calcium sulphate plaster has been prepared, and copies may be had from the Building Research Station. This note includes details of the proportions suggested.

With regard to cracking; any first undercoat of lime or of lime gauged with plaster is almost sure to crack either on wood or metal lathing. If this coat is allowed to dry and crack before applying a further coat, the latter should be relatively, though not necessarily entirely, immune from cracking. Although a richer mix is required on metal lathing, which tends to increase the shrinkage, it is not impossible that cracking of plaster over expanded metal would be less than that over wood laths, which themselves are bound to move to some extent when wetted.

With regard to staining; metallic lathing made of iron is naturally likely to rust if not completely covered and if in a damp situation. The tendency to rust is largely inhibited if free lime is present. If totally covered in lime or cement mortar, the risk of rust staining is negligible, but calcium sulphate plasters, which have a small quantity of an acid accelerator added during manufacture, accelerate the rusting of iron, and the iron rust stains may penetrate for some distance, producing unsightly discolorations. Such plasters should not, therefore, be used in direct contact with expanded metal lathing, but they may be used for finishing if the lathing is embedded in a first undercoat of Portland cement or cement and lime mortar. Lime plaster gauged with a calcium sulphate plaster is, however, generally protective for a very long time if kept dry.

To summarise the points discussed above :—

(1) The nature of the plastering material is of greater importance in ensuring the safety of ceilings than the nature of the lathing. A material capable of developing strength within a few hours should be used.

(2) Though it is possible that expanded metal might form a better base for lime plaster than wood laths, it is very doubtful whether this alone would ensure safety, and we recommend a material as above for use with either type of lathing.

(3) Rust stains should not develop if a lime or gauged lime plaster is used, and if this does not subsequently become wet. There is a danger of corrosion if calcium sulphate is used in direct contact with ferrous metal.

### Use of Portland Cement and Milk as a Protection for Iron Roofing.

Information was sought as to the efficacy of treating corrugated iron roofing to farm buildings with a mixture of cement and milk to prevent rusting.

REPLY.—Some years ago reports were received that mixtures of cement and milk had been found useful for the protection of structural steel in buildings during the course of erection. As no information on the subject was available, a small test to explore the possibilities of the process was made in the following manner :—

Bright steel bars 1 in. in diameter were brushed with a wash made by mixing Portland cement with full-cream milk. Other bars were similarly coated with Portland cement mixed with water. They were then placed in a rack and exposed on a roof for two years. During the exposure the cement wash showed good adhesion in both cases. The bars treated with the water-cement mixture gradually became brown with rust over the whole surface, but those treated with milk and cement showed only slight rusting.

It has been found that the addition of a small proportion of casein to cement slurry confers a paint-like character on the slurry and renders application by brush much easier. Presumably casein in the milk behaves in the same way. The fats and casein in the milk probably confer a certain degree of waterproofness on the coating. This method of protection may well deserve a trial for the particular purpose in question, but it must be realised that the degree of protection afforded, and its permanence under actual conditions of exposure, are not known.

### Mortars for Pointing Brickwork.

A firm of builders required coloured mortars, particularly in light shades, for pointing the brickwork of houses in an estate where facing bricks of various colours were being used. They assumed that a mortar of Portland cement and sand would be the most weather-resistant, and sought information as to the merits of white or coloured Portland cement-sand mixes as compared with other mortars.

REPLY.—It is scarcely possible to reply to this inquiry without discussing the mortar used for setting the bricks. In general, it may be taken that, if a separate material is to be used for pointing, this should not be denser than the jointing mortar. Investigations in progress at the Station indicate that a number of advantages may be derived from the use of a lime or gauged lime mortar rather than a dense Portland cement mortar. These advantages may be summarised as follows :—

1. The weather-resisting properties of the wall are superior.
2. The likelihood of efflorescence occurring on the surface of the brickwork is reduced.
3. The weathering qualities and durability of the brickwork are improved.
4. A more workable mixture may be obtained.

It is found that moisture seldom penetrates a brick wall through capillary channels in the body of the bricks themselves, but more often by way of fine hair cracks in the joints or between the jointing material and the brick. Such cracks are found to occur less with lime than with cement mortars. In addition, the more porous lime mortar will more readily absorb any water, which may enter by cracks, before it has penetrated the wall.

The crystallisation of soluble salts on the wall surface, which is the cause of efflorescence, is usually objected to on account of its unsightly appearance on a brick surface, but it may also lead to the disintegration of the bricks.

The choice of a mortar has considerable bearing on the question of efflorescence. For instance, less soluble salts may often be introduced by a lime mortar than by cement mortar. Also, a dense impermeable mortar causes all the salts, both from the bricks and the mortar, to crystallise on the face of the brick, whereas with a porous mortar the salts are more likely to be deposited mainly on the joints. In this way there will be less disfigurement of the wall, and the salts are only able to injure the mortar, which is more easily replaced than the bricks. It is considered, therefore, that a pointing of Portland cement and sand is itself likely to be more permanent than one of lime, yet nevertheless its use tends to lessen the life of the wall as a whole.

A non-hydraulic lime having no chemical set does not develop high strength, so that in cases where heavy loads are to be carried it

may be necessary to use Portland cement in conjunction with very strong bricks. In ordinary small domestic building, such as is here under consideration, the mortar acts principally as a bedding material to take up irregularities in the bricks, and no high degree of strength is required. Sufficient strength may be obtained by using a moderately hydraulic lime suitably handled, or a non-hydraulic lime gauged with a small proportion of Portland cement.

A suitable mortar in this instance would be one consisting of non-hydraulic lime and sand, gauged with cement in the proportion of 1 part cement to 3 parts lime by volume. The proportion of sand to cement and lime combined should be about 3 : 1 by volume, but this would depend on the quality of the sand, the degree of workability required, and also, to some extent, on whether lime putty or dry hydrated lime were used. Although different limes vary considerably in workability, as a general rule a lime putty has a higher sand-carrying capacity than a hydrated lime. If a separate pointing material is required, a similar mix may be used.

The question of colour is one which cannot be gone into in detail without more knowledge of the requirements. The colour of the joint depends largely on the method of finishing. Thus, with a weathered or struck joint which is compressed into the joint with the flat of a steel trowel, the colour of the cementing material which is brought to the surface will be predominant. If the joint is struck off flush or finished in such a way that a more open texture is obtained, the colour of the sand will influence the final appearance. The latter finish is preferable from the practical point of view and is often considered desirable for appearance.

A mortar composed as above, if mixed with a light-coloured sand and finished with an open texture, would probably give as light a colour as required, though, if desired, a white cement could be used for gauging. Other colours could be obtained by the addition of pigments or by the use of coloured cements for gauging, due attention being paid to the colour of the sand used.

### Corrosion of Steel Joists Embedded in Breeze Concrete.

A flat roof had been constructed some twenty years ago with rolled steel joists and concrete composed of coke breeze and Portland cement. The roof was covered with asphalt. A recent examination revealed bad corrosion of the steel joists; the webs were almost entirely destroyed and the flanges laminated. Over and along the steel joists cracks were found which had been filled with a bituminous composition suggesting that rain-water had penetrated at some time. Other flats constructed at the same time with similar materials appeared from a superficial examination to be sound. Information was sought as to the cause of the corrosion and whether the penetration of water had played a part.

REPLY.—Without doubt the corrosion of the steel joists was primarily caused by the breeze concrete. This subject is fully dealt with in Building Research Special Report No. 15, "The Corrosion of Steel by Breeze and Clinker Concretes," which may be obtained from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2, price 6d. net.

Breeze and clinker aggregates contain varying proportions of sulphur compounds, such as sulphides, and these seem to be the constituents responsible for the attack. Tests have been made on the corrosive properties of coal residues having sulphur contents varying from 0.24 per cent. to 1.62 per cent., and the degree of rusting produced has been found to be roughly in order of sulphur content. In addition to the presence of sulphides, etc., oxygen and moisture are involved in the process of corrosion, but the structure of breeze and clinker concrete is such that a sufficient supply of these is generally provided. These concretes are usually much more porous than a good quality of sand or ballast concrete, so that an abundant access of oxygen, which is a necessary participant in the reaction, will occur. Furthermore, it has been found that corrosion may occur quite independently of the access of liquid moisture to the concrete. Breeze, and to a less extent clinker, can absorb moisture from the atmosphere, so that there is progressive rusting of embedded steel under apparently dry indoor conditions.

Practical experience and laboratory investigation alike show the undesirability of using coal residue in concrete which is to be used in contact with, or reinforced by, steel. The best type of clinker we have been able to procure, well-fused and containing only 0.24 per cent. of sulphur—much below the average content—is slightly corrosive.

Marked access of liquid moisture to a breeze concrete will increase the rate of corrosion, and we agree that cracks in the asphalt roof would hasten the attack. It is not impossible that the cracking over the joists may have been due to the rusting of the steel, since this involves a marked expansion.

Although other roofs constructed of similar materials show no signs of unsoundness, we think it would be well to make a close examination. As pointed out above, the penetration of liquid moisture through the asphalt is not a necessary prerequisite to corrosion. There is also the possibility of some condensation of moisture on the underside of asphalt roofs, and this may be a factor in the present case.

## PAINT MARKETING COUNCIL

THE Paint Marketing Council will wind up its first year of activity shortly. In a communication which we have received from the Council it is stated that the graph of painters' and decorators' unemployment shows a tendency to rise sharply during the autumn, and a publicity campaign which has been planned for this month is inspired by a desire to keep unemployment this year at a reasonable level. The Council is also anxious that people should be made aware that in practice the autumn is a good period for carrying out both interior and exterior decorating work. As regards exterior painting, the Council points out that material is then in a highly suitable state to receive paint; as regards interior work, the time is one when people should think of brightening their homes in preparation for the gloom of the short winter days.

"We set out," writes the chairman of the Council, "to educate people on the subject of the preservative, hygienic, and æsthetic qualities of paint, and we are succeeding in our task. We told ourselves that if the public could learn what we proposed to teach them, work would be found for more painters in the slack season. This is just what has happened. In a normal year the first big drop in unemployment among painters and decorators occurs in March and April. This year it occurred in January and February. In other words, the painting season (both indoor and out) began at least two months earlier this year than usual. The unemployment figures are as follow :—

| 1933. | Month. | 1934. | Reduction. |
|---|---|---|---|
| 51.1% ... | January ... | 42.3% ... | 8.8% |
| 43% ... | February ... | 32.2% ... | 10.8% |
| 27.5% ... | March ... | 19.2% ... | 8.3% |
| 16.6% ... | April ... | 11.2% ... | 5.4% |
| 13.3% ... | May ... | 8.3% ... | 5% |
| 18.4% ... | June ... | 12% ... | 6.4% |

"These are official figures, compiled by the Ministry of Labour. I have had reports from paint manufacturers and decorators on every hand that the year has been an improvement on 1933. Several Government departments, such as the Office of Works and the Post Office, have co-operated with us in our work and have given the public a lead by putting in hand a good deal of work at a season when, unfortunately, employment among painters and decorators is usually bad. The Ministry of Labour has pointed out to local employment committees throughout the country the advisability, and indeed the urgency, of spreading over paint work as much as possible. Here, again, is an example of practical co-operation which has helped us enormously.

The Council proposes to make an autumn appeal to paint manufacturers for support in its campaign during 1935 and 1936. The appeal will be addressed not only to members of the National Federation of Associated Paint, Colour and Varnish Manufacturers of the U.K., but also to the other paint, colour and varnish manufacturers in the country. It will be in the form of a letter from the Chairman of the Paint Marketing Council, outlining what the Council has already done and what it hopes to do if it has increased financial support. An appeal in similar terms is to be sent as well to the manufacturers of raw materials and makers of paint machinery, several of whom have already indicated to the Council that, as a result of its campaign, there has been a sharp upward rise in their sales this year.

## NEW PUBLIC WORKS

### Hardingstone.

R.D.C. invite tenders for the erection of 16 houses at Yardley-Hastings, about eight miles from Northampton. Applications to the Sanitary Surveyor, Mr. E. F. Goulding, 28, Guildhall-road, before September 26. Deposit £1 1s. Tenders by October 9.

### Leicester.

The Leicestershire C.C. are inviting tenders for extensions to the County Offices, Grey Friars and Friars-lane. The county architect, Mr. W. Keay, F.R.I.B.A., 6, Millstone-lane, Leicester, has prepared the plans. The tenders are to be returned by October 16.

### Newcastle-upon-Tyne.

Contracts for 412 new Corporation houses have been considered by Newcastle City Council as follow : Mr. W. D. Allison, Whitburn, 98 four-roomed houses and 92 three-roomed for £55,767. Messrs. G. Bailey, Ltd., South Shields, 81 four-roomed houses and 89 three-roomed houses for £49,297. Mr. Alex. Anderson, Walker Gate, 40 two-roomed bungalows for £8,720. Messrs. G. Bailey, Ltd., of South Shields, four three-roomed and eight four-roomed flats for £3,333.

Road improvements, to cost £108,259, have also been considered.

### Rotherham.

T.C. invite tenders for the erection of a junior school at Coleridge-road, also for heating and hot-water installation. Particulars from Mr. Vincent Turner, Borough Engineer, Rotherham. Deposit £2 2s. Tenders by October 22.

### Southport.

T.C. invite tenders for the erection of a new club-house on the site of the existing site at the Municipal Golf Links, Park-road. Particulars from the Borough Engineer, Town Hall. Deposit £3 3s. Tenders by October 15.

### Stamford.

The T.C. are inviting tenders, to be returned by October 10, for the erection of 41 houses on the Cemetery-road housing site. Mr. F. R. Ryman, Borough Engineer, has prepared the plans.

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### Competition for Fireplaces and Surrounds.

In connection with the Coal Industries Fair, to be held at the White City from November 27 to December 15, the Coal Utilisation Council are organising a competition among architects for designs of open fireplaces and surrounds. Prizes of 50, 20 and 10 guineas are offered. Copies of entrance forms and conditions may be obtained on application to the secretary of the Coal Industries Fair, 5, Devonshire-street, W.1. The directors of the Building Centre will act as assessors.

# NEW BUILDINGS IN LONDON.

***The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER Office not later than Wednesday morning.***

ACTON.—EXTENSIONS.—And alterations are proposed to the works in Worple-way, W.3, of Messrs. C. A. V. Bosch, Ltd. Plans have been prepared by Messrs. Hobden and Porri, 13, Great James-street, W.C.1.

BECKENHAM.—FACTORY.—Messrs. R. and A. Konstamm are to build a factory and offices in Long-lane, Elmers-end. The contractors are Messrs. C. H. Gibson, Ltd., 509, London-road, Croydon. The plans are by Mr. H. Reginald Ross, L.R.I.B.A., 65, Chancery-lane, W.C.2.

BERMONDSEY.—BUILDINGS.—Large cold storage premises, etc., are to be constructed at New Church-street, S.E., for Messrs. Chambers' Wharf. The plans have been prepared by Messrs. Hal Williams and Co., 43, Bedford-square, W.C.1.

BOW.—ADDITIONS.—Are to be made to the premises of Messrs. Carter Bros., at 37, Treby-street, E.3. The plans have been prepared by Mr. J. R. Young, A.R.I.B.A., 3, Bedford-square, W.C.1.

BRIXTON-ROAD. — BRANCH. — Messrs. Prices, Tailors, Ltd., Cardigan-crescent, Armley, Leeds, have acquired Nos. 464-470, which are to be reconstructed as showrooms. Plans have been prepared by the company's architect, Mr. Philip S. B. Nicolle, L.R.I.B.A.

BROMLEY.—EXTENSIONS.—Including new wards and administrative buildings estimated to cost about £30,000, are proposed at the Bromley and District Hospital in Cromwell-avenue. The plans are being prepared by Mr. Percy Coad, L.R.I.B.A., The Homestead, Nightingale-lane, Bromley.

BROOKS-MEWS.—FLATS.—With shops on the ground floor are to be built on the site of Nos. 53-54. The contract has been placed with Messrs. Harry Neal, Ltd., 117, Baker-street, W.1. The plans have been prepared by Mr. Gerald Lacoste, A.R.I.B.A., 14, Bruton-street, W.1.

CAMBERWELL. — HOUSING. — The B.C. have asked the Church Army Housing, Ltd., to submit plans for the erection of working-class houses.

CAMDEN TOWN.—REBUILDING.—The contract for piling and foundation works in connection with the proposed rebuilding of the central factories and bakeries of the A.B.C., Ltd., Camden-road, N.W.1, has been placed with Messrs. John Gill, Contractors, Ltd., Thames House, Millbank, S.W.1. The architects are Messrs. C. W. Glover and Partners, Abbey House, Victoria-street, S.W.1. The total cost will be approximately £250,000.

CHELSEA.—FLATS.—A large block of flats is to be built in Cheyne-walk, S.W., to the plans of Mr. H. W. Binns, F.S.I., 23, Bloomsbury-square, W.C.1.

CHELSEA.—FLATS.—To be known as "Chesil Court," are to be built on a site in Manor-street and St. Loo-avenue, S.W.3. Plans have been prepared by Messrs. W. S. Grice and Denis Poulton, F. and A.R.I.B.A., 50, Baker-street, W.1, in collaboration with Mr. Austin Blomfield, M.A., A.R.I.B.A., New Court, Temple, E.C.4. No contracts have been placed yet.

CHIGWELL.—FIRE STATION.—The U.D.C. has placed a contract with Mr. Eric W. Burton, 7, Summerfield-road, Loughton, at £10,745, for the erection of a new fire-station and public offices.

CROYDON.—BLOCK.—The C.B. are inviting tenders, to be returned by October 16, for the erection of a new maternity block at the Mayday Hospital. Mr. H. Berney, 33, High-street, Croydon, is the architect.

EDMONTON.—SHOPS.—Messrs. Marrable Bros., builders, 60, Pretoria-road, Leytonstone, E.11, have prepared plans for 10 shops and living accommodation in Fore-street and Angel-road, N.

EWELL.—SHOPS.—Plans have been prepared by Messrs. Hooper, Belfrage and Hooper, Norfolk House, Norfolk-street, W.C.2, for a block of shops with flats.

GROSVENOR-ROAD.—SPORTS ARENA.—Mr. Nevill Hampson, L.R.I.B.A., 42, Stanhope-gardens, South Kensington, S.W.7, has prepared plans for a new sports arena in Grosvenor-road, Westminster, S.W.1.

HACKNEY.—BATHS.—For the erection of the new public baths and wash houses for the Borough Council, the lowest tender received was that of Commercial Structures, Ltd., of 38-44, Canal-road, N.1. The work will be commenced immediately the contract is signed. The plans were prepared, and the erection of the buildings will be superintended, by Mr. Percival Holt, Borough Engineer and Surveyor.

HACKNEY.—TOWN HALL.—Messrs. Dove Bros., Ltd., Cloudesley-place, Islington, N.1, have submitted the lowest tender for the new Town Hall at Hackney-grove, for which Messrs. Lanchester and Lodge, FF.R.I.B.A., 19, Bedford-square, W.C.1, are architects.

HAMMERSMITH.—REBUILDING.—The first section of the rebuilding and extension of the West London Hospital is to commence, a contract having been placed with Messrs. Bovis, Ltd., 35, High-street, W.1. The cost will be about £32,000. The plans have been prepared by Messrs. Trehearne and Norman, Preston and Co., Windsor House, Kingsway, W.C.2.

HIGHBURY.—EXTENSIONS.—Are to be made by the Mayfield Laundry, Ltd., at 28, Gillespie-road, N.5. The plans are by Messrs. Taylor and Smith, 19, Old-square, Lincoln's Inn, W.C.2.

HIGHGATE.—FLATS.—Two blocks of 7 flats each are to be built in Bloomfield-road, N., to the designs of Mr. James Lethbridge, F.R.I.B.A., 205, Archway-road, Highgate, N.6.

HOUNSLOW.—FLATS.—Work is to start soon on a large block of flats in Heston-road, for which the builders are Messrs. E. and J. Cotton, Ltd., Syon Hill Estate, Great West-road, Isleworth. The architects are Messrs. Marshall and Tweedy, FF.R.I.B.A., 4, Cavendish-place, Cavendish-street, W.1.

HOUNSLOW.—SHOPS.—Plans have been prepared for shops, with flats above, on the site of Nos. 78-84, High-street. The architect is Mr. Philip W. Davis, A.R.I.B.A., 30, Bedford-gardens, Campden-hill, W.8.

KENNINGTON.—SCHOOL.—The Camberwell B.C. has received a notice from the L.C.C. that it is proposed to provide a new public elementary school for about 900 places on a site near Kennington Oval.

KINGSTON-ON-THAMES. — ADDITIONS.—And alterations, costing about £8,000, are to be made to the Kingston-on-Thames Victoria Hospital in Coombe-lane. The contractors are Messrs. W. H. Gaze and Sons, Ltd., High-street. The architect is Mr. John W. Spink, 20, London-road.

KNIGHTSBRIDGE.—FLATS.—Are to be built on the site of Nos. 37-39, to the designs of Messrs. Mitchell and Bridgewater, AA.R.I.B.A., 17, Hanover-square, W.1.

LAVENDER HILL.—EXTENSIONS. — And alterations are to be made to the central emporium in Lavender Hill and Falcon-road, S.W., of Messrs. Hastings, Ltd. The architect is Mr. Henry Branch, 25, Cheapside, E.C.2. No contracts let.

MARYLEBONE-ROAD. — OFFICES. — The National Cash Register Co., Ltd., 225, Tottenham Court-road, W.1, have acquired a site for offices, showrooms, etc. The architects are Messrs. J. Stanley Beard and Clare, National Bank-chambers, Baker-street, W.1.

MERTON.—SHOPS.—Messrs. Burnett and Eprile, 107, Jermyn-street, S.W.1, are the architects for shops and flats to be erected in Martin-way. A building contract has been placed with Mr. J. F. McKenzie, 40, Watford-way, Hendon, N.W.4.

MITCHAM.—REBUILDING.—Of the "White Hart" Hotel, London-road, is projected by Messrs. Hoare and Co., Ltd., Red Lion Brewery, St. Katharine's-way, E.1, for which plans have been prepared by Messrs. Chart, Son, and Reading, Union Bank-chambers, Katherine-street, Croydon. The builders are Messrs. Truett and Steel, Ltd., 71, High-street, Thornton Heath.

PARK ROYAL. — FACTORY. — Messrs. Guinness, Son and Co., brewers, Dublin, have purchased a site at Park Royal, W., on which a new branch brewery is being erected by Messrs. Holland & Hannen and Cubitts, Ltd., 1, Queen Anne's-gate, Westminster, S.W.1.

PORTLAND-PLACE.—FLATS.—The contract for flats at Nos. 88-90, for Melton Court, Ltd., Regent House, Kingsway, W.C.2, has been placed with Messrs. Harry Neal, Ltd., 115, Baker-street, W.1. The plans have been prepared by Messrs. Trehearne and Norman, Preston and Co., Windsor House, Kingsway, W.C.2.

QUEENSBURY.—SHOPS. — Messrs. John Laing and Son, Ltd., Mill Hill, N.W.7, are to build a shopping parade, comprising 17 two-story shops and flats adjoining the Queensbury Railway Station. The plans have been prepared by Messrs. Lander, Bedells and Crompton, 6, John-street, Bedford-row, W.C.1.

REGENT'S PARK.—RESIDENCES.—A contract has been secured by Messrs. Pitchers, Ltd., 57, Ashburton-grove, Holloway, N.7, for some 10 town houses, at 1-10, Wells-road, N.W. The plans have been prepared by Sir John Burnet, Tait and Lorne, 1, Montague-place, W.C.1.

RICHMOND.—ALTERATIONS.—And additions are contemplated at the Richmond Congregational Church by the trustees. The plans have been prepared by Mr. Lawrence Shattock, A.R.I.B.A., 26, Victoria-street, S.W.1.

SILVERTOWN.—EXTENSIONS.—Are to be made to the works in North Woolwich-road, E., of Messrs. Pinchin, Johnson and Co., Ltd., 4, Carlton-gardens, S.W.1. A contract has been placed with Messrs. Rigg and Remington, Ltd., Carteret House, Carteret-street, S.W.1.

STREATHAM.—FLATS.—The contract for the block of 220 flats at Streatham Hill, S.W., to be known as "Pullman Court," has been placed with Messrs. Rice and Son, Ltd., 5, Stockwell-road, S.W.9. The plans have been prepared by Mr. Frederick Gibberd, 29, Sloane-square, S.W.1, acting on behalf of Pullman Flats, Ltd.

TOLWORTH.—EXTENSIONS. — Including new cubicle and pavilion wards, etc., are to be made to the Tolworth and District Isolation Hospital, the Joint Hospital Board having accepted the tender of Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W.8. The plans have been prepared by Mr. P. J. B. Harland, A.R.I.B.A., Lulworth House, Langley-road, Surbiton Hill.

WEST WICKHAM.—CHURCH.—A contract has been placed with Messrs. A. E. Symes, Ltd., Albert Works, Carpenter-road, Stratford, E.15, for the erection of a new Methodist School Church building in Hawes-lane. The plans have been prepared by Messrs. George Baines and Son, FF.R.I.B.A., 121, Victoria-street, S.W.1.

WILLESDEN.—ADDITIONS.—Including new purifying house are to be made to the works of the British Oxygen Co., Ltd., in North Circular-road, N.W., to the plans of their own engineers. The contractors are Messrs. William Moss and Son, Ltd., North Circular-road, N.W.2.

WOOLWICH.—EXTENSIONS.—To works, etc., are contemplated by Messrs. W. T. Henley's Telegraph Works Co., Ltd., Holborn Viaduct, E.C.1. The contract has been placed with Messrs. G. E. Wallis and Sons, Ltd., 18, York-buildings, Adelphi, W.C. The architect is Mr. George Vernon, A.R.I.B.A., 19, Russell-square, W.C.1.

WOOLWICH.—ALTERATIONS.—H.M. War Offices has placed a contract with Mr. E. J. Logan, 212a, Shaftesbury-avenue, W.C.2, for alterations to the barracks, etc., and repairs to stable.

# NEWS ITEMS

### A Freehold Building Property.

Hawke House, Sunbury-on-Thames, a valuable freehold building estate of 43 acres, will be offered by auction by Messrs. Knight, Frank and Rutley, in conjunction with Messrs. Cecil and Co., at Hanover-square, on October 11, for the executors of the late Mr. Thomas Croysdale. The property is close to a shopping area and the river, and is ripe for immediate development, having 2,000 feet of frontage to existing roads, with main drainage and all services available. There is also a residence dated 1703, which was at one time the home of the famous Admiral Hawke, old-world pleasure grounds, and two cottages.

### Builders' Clerks' Benevolent Institution.

The 67th annual report of the Committee of the Builders' Clerks' Benevolent Institution, now issued, with the accounts, for 1933-34, indicates that the receipts for the year were £1,457 and that the Institution paid £829 in annual pensions, £55 in temporary relief, invested £500 in 3½ per cent. War Loan Stock, and added £50 to a separate account for the purchase of a presentation (to cost £262 10s.) to educate and maintain an orphan of a builder's clerk. The thanks of the committee are tendered to Mr. W. W. Dove for his services as President. It is announced that Mr. A. H. Adamson has accepted the office for the ensuing year.

### Smoke Abatement.

The sixth annual conference of the National Smoke Abatement Society will be held at Glasgow from September 27-29. There will be a reception by the Lord Provost in the City Chambers on the Thursday, September 27, while the annual general meeting and first conference session will open on Friday morning, September 28. The second conference session (arranged by the Scottish Branch) will take place in the afternoon, and the third conference session on Saturday morning. A tour to the Trossachs and Loch Katrine will occupy the whole of Saturday. Details are available from the General Secretary, National Smoke Abatement Society, 36, King-street, Manchester, 2.

### Standard Definitions for Softwoods.

We have received notice that the British Standards Institution has just published as a British Standard the Terms and Definitions for Softwoods with which the Timber Trade is no doubt familiar in its draft form, many copies having been distributed by the Institution for comment during the past year. The trade should be prepared to welcome such a glossary, and it should prove a useful and long-needed piece of work. The Glossary is divided into four sections, viz.: General terms and definitions and sizes; plywood terms and definitions; joinery (milled) terms and definitions; and a comprehensive alphabetical index. Copies of this British Standard (B.S.S. No. 565-1934) may be obtained from the Publications Department, British Standards Institution, 28, Victoria-street, S.W.1, price 2s 2d. post free.

### Building Societies and Estate Development.

Mr. C. W. C. Needham, speaking at a week-end school of the Lancashire and Cheshire, Midlands and Yorkshire County Associations of Building Societies, at Harrogate, said he was surprised at the amounts that were being advanced by some building societies on small house property of doubtful quality. As a building society valuer he was aghast, he said, at the way in which some building societies were financing schemes of development whereby England's beauty was being defaced by houses that were badly built, and even more badly designed. Much that was really vulgar in house design was popular because the public had been gulled into believing that the vulgar was "smart." It might be asked, "Are there not plans for these houses?" There certainly were plans, sometimes drawn up by architects on the instructions of builders who were erecting the houses unsupervised, and in practically every case, to the architect's dismay, his design was not properly carried out, and the finished article was a caricature of the original design. A schoolboy could draw a plan sufficient to comply with the requirements of the average local authority.

# TRADE NEWS

### An Appointment.

Mr. S. Griffiths, director of Messrs. Higgins and Griffiths, Ltd, electrical engineers, of 21, Orchard-street, Portman-square, W.1, in voluntary liquidation, has been elected director of Duncan Watson (Electrical Engineers), Ltd., of 62, Berners-street, London, W.1.

### A "Coiled-Coil" Lamp.

We are informed that by the use of a "double-coiled" filament, which reduces the loss of heat, the manufacturers of "Mazda" lamps have been able to increase the efficiency of their latest lamp by 20 per cent., as compared with the ordinary gasfilled lamp. This new lamp, known as the "Mazda Coiled-Coil" lamp, is at present supplied in one size only—40 watts. A 60-watt lamp will, however, be available early in the New Year. Mazda "Coiled-Coil" lamps, although stated to give 20 per cent. more light, are sold at the same prices as the ordinary types.

### An Insulating Board.

It is interesting to note that the "bricks" of the slum houses transported to the Building Exhibition, Olympia, from Hoxton for the Slum Clearance Society's exhibit are made of "Treetex." Although this house has been brought almost in its entirety, including the dust and dirt on the corner shop window, it was not possible to transport the brickwork. This, therefore, was most cleverly copied in "Treetex," even to the settlement cracks beneath the window sill. The pointing has been cleverly simulated by the very simple means of drawing a nail along the "Treetex" and colouring the grooves. Incidentally, it is interesting to note that "Treetex" is stated to have actually in its half-inch thicknesses an insulation value equal to 7½ in. of the brick it is intended to represent.

### Imported Flooring Blocks.

The Standing Committee appointed by the Board of Trade will hold an inquiry at 11.30 a.m. on Monday, October 15, and at 10.30 a.m. on Tuesday, October 16, as to whether imported goods of the following descriptions should be required to bear an indication of origin:—(*a*) Planed and tongued and grooved or planed and otherwise manufactured hardwood flooring blocks or strips; (*b*) hardwood parquet flooring in sections composed of blocks or strips glued or otherwise joined together; (*c*) planed and tongued and grooved, or planed and otherwise manufactured softwood flooring blocks. The inquiry will be held at the Board of Trade Offices, Great George-street, London, S.W.1. Communications should be addressed to the Secretary, Mr. E. W. Reardon, at that address.

## BUILDING AND ALLIED TRADES' GOLFING SOCIETY

The autumn meeting of this Society will take place at "Wentworth," Virginia Water, on Tuesday, October 9.

Singles (medal play) and fourball foursome against bogey will be played. There will be prizes for each event, including a scratch prize for the singles. The singles will be divided into two sections: (1) Up to 12 handicap; and (2) 13 to 18. Members will play from their lowest club handicap, and those over 18 handicap will play from 18.

THE "DYKE" CUP.—Concurrently with the singles competition, those members who qualified at the spring meeting will be eligible to complete the remaining 18 holes play on the same handicap. (These members must play their singles in the morning.)

"THE BUILDER" TROPHY.—All members except those who qualified for the "Dyke" Cup, may compete. The play will be medal on handicap—limit 18—and is concurrent with the singles competition. The trophy will be held for one year by the winner, who will receive a miniature kindly presented by *The Builder*. (The trophy becomes the sole property of a member winning it three times.)

The charges for the day, including green fee, luncheon, caddy, tips to indoor staff, and allowing for prize money, will be £1. New members will also pay an additional 2s. 6d. for annual subscription. (Members must tip their own caddy). The competitors may commence their rounds at 9.30 a.m. and can choose their own partners if desired. The annual general meeting will follow the day's play. Full details are available from Mr. Hubert H. Hill (hon. secretary), W. G. Hill and Son, Monument Station-buildings, King William-street, London, E.C.4.

# TOWN AND COUNTRY PLANNING

(*Continued from page 462, issue of September 14.*)

WESTMORLAND. — †Ambleside U.D.C.; South Westmorland R.D.C. (P.S.A.).

YORK (WEST RIDING).—Baildon U.D.C. (P.S.A.); Bingley U.D.C. (P.S.A.); *Bishopsthorpe R.D.C. (York T.C. No. 8); Bradford T.C. (Nos. 1, 2, 3, 9 and 9a) (P.S.A.) (No. 10 Clayton) (S.O.); Doncaster T.C. (P.S.A.); Elland U.D.C. (S.O.); *Garforth U.D.C. (Tadcaster R.D.C. No. 1); *Great Ouseburn R.D.C. (P.S.A.), (York T.C. No. 7); Halifax T.C. (Nos 1, 2 and 3) (S.O.); Halifax R.D.C. *(Bradford T.C. No. 9), *Huddersfield T.C. No. 2); *Hemsworth R.D.C. (Doncaster R.D.C. Carcroft); Horbury U.D.C. (P.S.A.); Hunslet R.D.C. (Oulton-with-Woodlesford Nos. 1 and 2) (P.S.A.); Knaresborough U.D.C. (S.O.); Leeds T.C. (Buckingham House) (S.O.), (Templenewsam No. 1 (S.O.), (Templenewsam Amending Scheme (S.O.), (Nos. 2, 3, and 4) (P.S.A.), (Nos. 5 and 5a) (P.S.), (No. 6) (S.S.), (Templenewsam No. 2) No. 9 (P.S.A.); Linthwaite U.D.C. (S.O.); *Methley U.D.C. (Hunslet R.D.C. No. 1); Otley U.D.C. (No. 1) (S.O.); *Pudsey T.C. (Leeds T.C. No. 5); Rothwell U.D.C. (P.S.A.). *Selby R.D.C. (Selby U.D.C. Nos. 1 and 2); Sheffield T.C. (South-West) (P.S.A.); *Shelf (Bradford T.C. No. 9); Shipley U.D.C. (No. 1) (P.S.A.); Wakefield T.C. (P.S.A.); Wortley R.D.C. (No. 1) (P.S.A.).

WALES (including Monmouth).

CARDIGAN.—Aberystwyth T.C. (No. 1) (P.S.A.); *Aberystwyth R.D.C. (Aberystwyth T.C. Nos. 2 and 3).

DENBIGH.—Wrexham T.C. (P.S.A.), *(Wrexham R.D.C. Stansty); *Wrexham R.D.C. (Wrexham T.C. No. 1).

GLAMORGAN.—Barry U.D.C. (No. 1) (P.S.A.); Cardiff T.C. (Central, etc.) (P.S.A.); Cardiff R.D.C. (Nos. 1 and 2) (S.O.), *(Cardiff T.C. Central).

MONMOUTH.—Bedwellty U.D.C. (P.S.A.); *Caerleon U.D.S. (Newport T.C. Main Area); *Llantarnam U.D.C. (Newport T.C. Main Area); *Magor R.D.C. (Newport T.C. Main Area); Newport T.C. (Part 1) (P.S.A.); *St. Mellons R.D.C. (Newport T.C. Part 1).

R.A.—Indicates that a resolution deciding to prepare a scheme, or authority to prepare a scheme, has become effective (whether or not passed, granted, or approved before the Act of 1932 came into operation), but that no preliminary statement or scheme has yet been submitted to the Minister.

P.S.—Indicates that a preliminary statement of proposals for development has been submitted but has not yet been approved by the Minister.

P.S.A.—Indicates that a preliminary statement has been approved by the Minister.

D.S.—Indicates that a draft scheme has been adopted but a scheme has not yet been submitted to the Minister.

S.S.—Indicates that a scheme has been submitted to, but has not been approved by, the Minister.

S.A.—Indicates that a scheme has been approved by the Minister and laid before Parliament.

S.C.—Indicates that a scheme has been laid before Parliament and is capable of coming into operation.

S.O.—Indicates that a scheme has become operative.

* Indicates that a portion of the authority's district is included in the area of a scheme being prepared by another authority, the name of which is shown in brackets.

† Indicates that, at the stage shown, the action has been taken by a joint executive committee or county council and not by the local authority itself.

# RATES OF WAGES IN THE BUILDING TRADE

**AS AND FROM 1st FEBRUARY, 1934.**

**[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]**

| | Crafts-men. | Lab-ourers. |
|---|---|---|
| Aberdare | 1/5 | 1/0½ |
| Abergavenny | 1/5 | 1/0½ |
| Aberystwyth | 1/2 | 10½ |
| Accrington | 1/5½ | 1/1½ |
| Aldeburgh | 1/1½ | 10½ |
| Aldershot | 1/2½ | 11 |
| Alfreton | 1/5½ | 1/1½ |
| Alnwick | 1/4½ | 1/0½ |
| Altrincham | 1/5½ | 1/1½ |
| Amble | 1/4½ | 1/0½ |
| Amersham | 1/3½ | 11½ |
| Ammanford | 1/5½ | 1/1½ |
| Andover | 1/2½ | 11 |
| Arundel | 1/2½ | 11 |
| Ascot | 1/3½ | 11½ |
| Ashby-de-la-Zouch | 1/4 | 1/- |
| Ashford (Kent) | 1/2½ | 11 |
| Ashford (Middx).) | 1/4 | 1/- |
| Ashington | 1/4½ | 1/0½ |
| Ashtead | 1/4 | 1/- |
| Ashton-under-Lyne | 1/5½ | 1/1½ |
| Aylesbury | 1/2½ | 11 |
| Aylsham | 1/2 | 10½ |
| Bagshot | 1/2½ | 11 |
| Banbury | 1/3 | 11½ |
| Barnsley | 1/5½ | 1/1½ |
| Barnstaple | 1/3½ | 11½ |
| Barrow-in-Furness | 1/5½ | 1/1½ |
| Barry | 1/5½ | 1/1½ |
| Basingstoke | 1/3 | 11½ |
| Bath | 1/4½ | 1/0½ |
| Batley | 1/5½ | 1/1½ |
| Beaconsfield | 1/3½ | 11½ |
| Beccles | 1/2 | 10½ |
| Bedford | 1/4½ | 1/0½ |
| Berkhamsted | 1/3 | 11½ |
| Berwick | 1/4½ | 1/0½ |
| Beverley | 1/5½ | 1/1½ |
| Bexhill | 1/3 | 11½ |
| Bideford | 1/3½ | 11½ |
| Biggleswade | 1/3 | 11½ |
| Billericay | 1/2 | 10½ |
| Birchington | 1/3 | 11½ |
| Birkenhead | 1/7† | 1/2½ |
| Birmingham | 1/5½ | 1/1½ |
| Bishop Auckland | 1/5 | 1/0½ |
| Bishops Stortford | 1/3 | 11½ |
| Blackburn | 1/5½ | 1/1½ |
| Blackpool | 1/5½ | 1/1½ |
| Blyth | 1/5½ | 1/1½ |
| Bognor Regis | 1/3 | 11½ |
| Bolton | 1/5½ | 1/1½ |
| Bournemouth | 1/4 | 1/- |
| Bracknell | 1/3 | 11½ |
| Bradford | 1/5½ | 1/1½ |
| Bradford-on-Avon | 1/2½* | 11 |
| Braintree | 1/3½ | 11½ |
| Brentwood | 1/5 | 1/0½ |
| Bridgwater | 1/3 | 11½ |
| Bridlington | 1/5 | 1/0½ |
| Brighouse | 1/5½ | 1/1½ |
| Brighton | 1/4 | 1/- |
| Bristol | 1/5½ | 1/1½ |
| Broadstairs | 1/3 | 11½ |
| Bromsgrove | 1/4½ | 1/0½ |
| Bromyard | 1/2 | 10½ |
| Buckley | 1/5½ | 1/1½ |
| Bungay | 1/1½ | 10½ |
| Burnham-on-Crouch | 1/2 | 10½ |
| Burnley | 1/5½ | 1/1½ |
| Burslem | 1/5½ | 1/1½ |
| Burton-on-Trent | 1/5½ | 1/1½ |
| Bury | 1/5½ | 1/1½ |
| Bury St. Edmunds | 1/2½ | 11 |
| Buxton | 1/5 | 1/0½ |
| Byfleet | 1/3 | 11½ |
| Cambridge | 1/5 | 1/0½ |
| Canterbury | 1/3 | 11½ |
| Cardiff | 1/5½ | 1/1½ |
| Carlisle | 1/5½ | 1/1½ |
| Carnforth | 1/5½ | 1/1½ |
| Castleford | 1/5½ | 1/1½ |
| Caterham | 1/4 | 1/- |
| Chard | 1/2* | 10½ |
| Chatham | 1/3½ | 11½ |
| Chelmsford | 1/4 | 1/- |
| Cheltenham | 1/4 | 1/- |
| Chepstow | 1/4½ | 1/0½ |
| Chertsey | 1/4 | 1/- |
| Chester | 1/5½ | 1/1½ |
| Chesterfield | 1/5½ | 1/1½ |
| Chichester | 1/3 | 11½ |
| Chorley | 1/5½ | 1/1½ |
| Cirencester | 1/3* | 11½ |
| Clacton | 1/3½ | 11½ |
| Cleveleys | 1/5½ | 1/1½ |
| Clitheroe | 1/5½ | 1/1½ |
| Cobham | 1/4 | 1/- |
| Colchester | 1/4 | 1/- |
| Colwyn Bay | 1/4½ | 1/0½ |
| Congleton | 1/5 | 1/0½ |
| Coventry | 1/5½ | 1/1½ |
| Cranbrook | 1/2 | 10½ |
| Cranleigh | 1/2½ | 11 |
| Crawley | 1/3 | 11½ |
| Crewe | 1/4½ | 1/0½ |
| Cromer | 1/2½ | 11 |
| Crowborough | 1/3 | 11½ |
| Cuckfield | 1/3 | 11½ |
| Darlington | 1/5½ | 1/1½ |
| Darwen | 1/5½ | 1/1½ |
| Daventry | 1/4 | 1/- |
| Deal | 1/3 | 11½ |
| Denbigh | 1/4 | 1/- |
| Derby | 1/5½ | 1/1½ |
| Devizes | 1/2* | 10½ |
| Dewsbury | 1/5½ | 1/1½ |
| Didcot | 1/3½ | 11½ |
| Diss | 1/2 | 10½ |
| Doncaster | 1/5½ | 1/1½ |
| Dorchester | 1/2½* | 11 |
| Dorking | 1/3 | 11½ |
| Dover | 1/3 | 11½ |
| Dovercourt | 1/3½ | 11½ |
| Driffield | 1/4 | 1/- |
| Droitwich | 1/4½ | 1/0½ |
| Dudley | 1/5½ | 1/1½ |
| Dunstable | 1/2 | 10½ |
| Durham | 1/5½ | 1/1½ |
| Eastbourne | 1/4 | 1/- |
| E. Glam. (Mon. Val.) | 1/5 | 1/0½ |
| East Grinstead | 1/3 | 11½ |
| Edenbridge | 1/3 | 11½ |
| Ely | 1/2 | 10½ |
| Epping | 1/4½ | 1/0½ |
| Exeter | 1/4½† | 1/0½ |
| Exmouth | 1/3½ | 11½ |
| Fakenham | 1/2 | 10½ |
| Falmouth | 1/3½ | 11½ |
| Fareham | 1/3 | 11½ |
| Faversham | 1/2½ | 11 |
| Felixstowe | 1/4 | 1/- |
| Filey | 1/4 | 1/- |
| Fleetwood | 1/5½ | 1/1½ |
| Flint | 1/5 | 1/0½ |
| Folkestone | 1/3 | 11½ |
| Frinton-on-Sea | 1/3½ | 11½ |
| Frome | 1/2½* | 11 |
| Gainsborough | 1/4½ | 1/0½ |
| Gateshead | 1/5½ | 1/1½ |
| Gillingham | 1/3½ | 11½ |
| Glossop | 1/5 | 1/1½ |
| Gloucester | 1/4½† | 1/0½ |
| Godalming | 1/3½ | 11½ |
| Goole | 1/4½ | 1/0½ |
| Gosport | 1/4½ | 1/0½ |
| Grantham | 1/4 | 1/- |
| Gravesend | 1/5 | 1/0½ |
| Gt. Yarmouth | 1/3 | 11½ |
| Grimsby | 1/5½ | 1/1½ |
| Guildford | 1/3½ | 11½ |
| Guilsborough | 1/4 | 1/- |
| Halifax | 1/5½ | 1/1½ |
| Hanley | 1/5½ | 1/1½ |
| Harpenden | 1/3 | 11½ |
| Harrogate | 1/5½ | 1/1½ |
| Hartlepools | 1/5½ | 1/1½ |
| Harwich | 1/3½ | 11½ |
| Haslemere | 1/2½ | 11 |
| Hastings | 1/3 | 11½ |
| Hatfield | 1/4½ | 1/0½ |
| Haywards Heath | 1/3 | 11½ |
| Hednesford | 1/5 | 1/0½ |
| Hemel Hempstead | 1/4 | 1/0 |
| Henley | 1/3½ | 11½ |
| Hereford | 1/3½* | 11½ |
| Herne Bay | 1/3 | 11½ |
| Hertford | 1/4½ | 1/0½ |
| Heysham | 1/5½ | 1/1½ |
| Hitchin | 1/3½ | 11½ |
| Hoddesdon | 1/4½ | 1/0½ |
| Holt | 1/1½ | 10½ |
| Horley | 1/3 | 11½ |
| Horsham | 1/2½ | 11 |
| Horwich | 1/5½ | 1/1½ |
| Huddersfield | 1/5½ | 1/1½ |
| Hull | 1/5½ | 1/1½ |
| Hunstanton | 1/2 | 10½ |
| Huntingdon | 1/2½ | 11 |
| Ilfracombe | 1/3½ | 11½ |
| Ingatestone | 1/3 | 11½ |
| Ipswich | 1/4½ | 1/0½ |
| Isle of Thanet | 1/3 | 11½ |
| Isle of Wight | 1/2 | 10½ |
| Keighley | 1/5½ | 1/1½ |
| Kenilworth | 1/5½ | 1/1½ |
| Kettering | 1/4½ | 1/0½ |
| Kidderminster | 1/4½ | 1/0½ |
| King's Lynn | 1/3 | 11½ |
| Kirkham | 1/5½ | 1/1½ |
| Knowle | 1/5 | 1/0½ |
| Lancaster | 1/5½ | 1/1½ |
| Leamington | 1/5 | 1/0½ |
| Leatherhead | 1/4 | 1/- |
| Leeds | 1/5½ | 1/1½ |
| Leicester | 1/5½ | 1/1½ |
| Leighton Buzzard | 1/2 | 10½ |
| Letchworth | 1/3½ | 11½ |
| Lewes | 1/2 | 10½ |
| Lichfield | 1/4½ | 1/0½ |
| Lincoln | 1/5½ | 1/1½ |
| Littlehampton | 1/3 | 11½ |
| Liverpool | 1/7‡ | 1/2½ |
| Llandudno | 1/4½ | 1/0½ |
| Llanelly | 1/5½ | 1/1½ |
| London— | | |
| 12 m. radius | 1/7* | 1/2½ |
| 12-15 m. radius | 1/6½* | 1/2 |
| Long Eaton | 1/5½ | 1/1½ |
| Longton | 1/5½ | 1/1½ |
| Loughborough | 1/5½ | 1/1½ |
| Louth | 1/4 | 1/- |
| Lowestoft | 1/3 | 11½ |
| Luton | 1/4 | 1/- |
| Macclesfield | 1/5 | 1/0½ |
| Maidenhead | 1/4 | 1/- |
| Maidstone | 1/3½ | 11½ |
| Malvern | 1/4 | 1/- |
| Manchester | 1/5½ | 1/1½ |
| Manningtree | 1/2 | 10½ |
| Mansfield | 1/5½ | 1/1½ |
| March | 1/2 | 10½ |
| Margate | 1/3 | 11½ |
| Market Harborough | 1/4½ | 1/0½ |
| Matlock | 1/4 | 1/- |
| Melton Constable | 1/1½ | 10½ |
| Melton Mowbray | 1/4½ | 1/0½ |
| Merthyr Tydfil | 1/5 | 1/0½ |
| Middlesbrough | 1/5½ | 1/1½ |
| Middleton | 1/5½ | 1/1½ |
| Middlewich | 1/4½ | 1/0½ |
| Milford Haven | 1/3½ | 11½ |
| Morecambe | 1/5½ | 1/1½ |
| Morley | 1/5½ | 1/1½ |
| Mundesley | 1/2 | 10½ |
| Nantwich | 1/4½ | 1/0½ |
| Newark | 1/4½ | 1/0½ |
| Newbury | 1/2½ | 11 |
| Newcastle-on-Tyne | 1/5½ | 1/1½ |
| Newcastle-u-Lyme | 1/5½ | 1/1½ |
| New Forest | 1/2½ | 11 |
| Newmarket | 1/3 | 11½ |
| Newport, Mon. | 1/5½ | 1/1½ |
| Newport Pagnell | 1/2½ | 11 |
| Northampton | 1/5½ | 1/1½ |
| Norwich | 1/5 | 1/0½ |
| Nottingham | 1/5½ | 1/1½ |
| Nuneaton | 1/5½ | 1/1½ |
| Oakham | 1/4 | 1/- |
| Oldham | 1/5½ | 1/1½ |
| Ormskirk | 1/5½ | 1/1½ |
| Oxford | 1/4½ | 1/0½ |
| Oxted | 1/2½ | 11 |
| Paignton | 1/4½ | 1-0½ |
| Peterborough | 1/4½ | 1/0½ |
| Plymouth | 1/5½† | 1/1½ |
| Pontypridd | 1/5 | 1/0½ |
| Portsmouth | 1/4½ | 1/0½ |
| Port Talbot | 1/5½ | 1/1½ |
| Preston | 1/5½ | 1/1½ |
| Pulborough | 1/2 | 10½ |
| Ramsgate | 1/3 | 11½ |
| Reading | 1/4½ | 1/0½ |
| Redcar | 1/5½ | 1/1½ |
| Redditch | 1/4½ | 1/0½ |
| Redhill | 1/3½ | 11½ |
| Reigate | 1/3½ | 11½ |
| Retford | 1/4 | 1/- |
| Ripon | 1/4 | 1/- |
| Rochdale | 1/5½ | 1/1½ |
| Rochester | 1/3½ | 11½ |
| Rugby | 1/5½ | 1/1½ |
| Saffron Walden | 1/2 | 10½ |
| St. Albans | 1/5 | 1/0½ |
| St. Helens | 1/5½ | 1/1½ |
| St. Neots | 1/2½ | 11 |
| Salisbury | 1/2½* | 11 |
| Salisbury Plain | 1/2½* | 11 |
| Sawbridgeworth | 1/3½ | 11½ |
| Saxmundham | 1/1½ | 10½ |
| Scarborough | 1/5 | 1/0½ |
| Selby | 1/5½ | 1/1½ |
| Sevenoaks | 1/3½ | 11½ |
| Sheerness | 1/3 | 11½ |
| Sheffield | 1/5½ | 1/1½ |
| Shipley | 1/5½ | 1/1½ |
| Shoeburyness | 1/4½ | 1/0½ |
| Shoreham | 1/4 | 1/- |
| Shrewsbury | 1/4½ | 1/0½ |
| Sittingbourne | 1/2½ | 11 |
| Skegness | 1/4½ | 1/0½ |
| Sleaford | 1/4 | 1/- |
| Slough | 1/4½ | 1/0½ |
| Southampton | 1/4½ | 1/0½ |
| Southend-on-Sea | 1/4½ | 1/0½ |
| Southport | 1/5½ | 1/1½ |
| South Shields | 1/5½ | 1/1‡ |
| Spalding | 1/3 | 11½ |
| Stafford | 1/5 | 1/0½ |
| Staines | 1/4 | 1/- |
| Stamford | 1/4 | 1/- |
| Stevenage | 1/3½ | 11½ |
| Stockport | 1/5½ | 1/1½ |
| Stockton-on-Tees | 1/5½ | 1/1½ |
| Stoke-on-Trent | 1/5½ | 1/1½ |
| Stourbridge | 1/5 | 1/0½ |
| Stourport | 1/4½ | 1/0½ |
| Stowmarket | 1/2 | 10½ |
| Stratford-on-Avon | 1/4 | 1/- |
| Stroud | 1/3½† | 11½ |
| Sunderland | 1/5½ | 1/1½ |
| Sutton Coldfield | 1/5½ | 1/1½ |
| Swaffham | 1/1½ | 10½ |
| Swanage | 1/3½* | 11½ |
| Swansea | 1/5½ | 1/1½ |
| Swindon | 1/4* | 1/- |
| Tamworth | 1/5 | 1/0½ |
| Taunton | 1/3½ | 11½ |
| Tenterden | 1/2½ | 11 |
| Tewkesbury | 1/4* | 1/- |
| Thetford | 1/2 | 10½ |
| Thorpe Bay | 1/4½ | 1/0½ |
| Todmorden | 1/5½ | 1/1½ |
| Tonbridge | 1/3½ | 11½ |
| Torquay | 1/5 | 1/0½ |
| Totnes | 1/3½† | 11½ |
| Trowbridge | 1/2½* | 11 |
| Truro | 1/2½ | 11 |
| Tunbridge Wells | 1/3½ | 11½ |
| Uppingham | 1/4 | 1/- |
| Uttoxeter | 1/3½ | 11½ |
| Wakefield | 1/5½ | 1/1½ |
| Walsall | 1/5½ | 1/1½ |
| Walsden | 1/5½ | 1/1½ |
| Walton-on-Naze | 1/3½ | 11½ |
| Ware | 1/4½ | 1/0½ |
| Warminster | 1/2½* | 11 |
| Warrington | 1/5½ | 1/1½ |
| Warwick | 1/5 | 1/0½ |
| Wellingborough | 1/4½ | 1/0½ |
| Wells (Norfolk) | 1/1½ | 10½ |
| Welwyn | 1/3 | 11½ |
| Welwyn Gar. City | 1/5½ | 1/1½ |
| West Bromwich | 1/5½ | 1/1½ |
| Westcliff-on-Sea | 1/4½ | 1/0½ |
| Weston-super-Mare | 1/4½ | 1/0½ |
| Weybridge | 1/4 | 1/- |
| Weymouth | 1/3* | 11½ |
| Whitby | 1/4½ | 1/0½ |
| Whitstable | 1/3 | 11½ |
| Widnes | 1/5½ | 1/1½ |
| Wigan | 1/5½ | 1/1½ |
| Wigton | 1/4 | 1/- |
| Wellington | 1/5 | 1/0½ |
| Wilmslow | 1/5½ | 1/1½ |
| Winchester | 1/3½ | 11½ |
| Windermere | 1/3½ | 11½ |
| Windsor | 1/4½ | 1/0½ |
| Wisbech | 1/2 | 10½ |
| Witham | 1/3½ | 11½ |
| Woking | 1/3½ | 11½ |
| Wokingham | 1/3½ | 11½ |
| Wolverhampton | 1/5½ | 1/1½ |
| Woodbridge | 1/2 | 10½ |
| Worcester | 1/4½ | 1/0½ |
| Workington | 1/4 | 1/- |
| Worksop | 1/4 | 1/- |
| Worthing | 1/3 | 11½ |
| Wrexham | 1/5 | 1/0½ |
| Wroxham | 1/2½ | 11 |
| Wycombe | 1/4 | 1/- |
| Wymondham | 1/1½ | 10½ |
| Yeovil | 1/3* | 11½ |
| York | 1/5½ | 1/1½ |

* Painters, 1d. less than other Craftsmen. † Painters, ½d. less than other Craftsmen. ‡ Plasterers 1s. 8d.

For Building Trade Wages in Scotland, see page 518.

# CONTRACTS OPEN

**For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary.**

***The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.***

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S; Engineer, E.

## BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

### SEPTEMBER 24.

**Barnstaple.**—Painting.—Exterior of North Devon Infirmary. J. C. Southcombe, hon. architect, Cross-st.

**Blyth.**—Houses.—26, on various sites, for R.D.C. A. A. Hipperson, Reydon, Southwold. Dep. £1 1s.

**Cupar.**—Demolition.—Of chimney stalk, for Fife C.C. W. Boyd, District Road Surveyor, County Buildings, Cupar.

**Denholme.**—Houses.—6 non-parlour type in Ogden-lane, for U.D.C. E. Hill, S. Dep. £2.

**Edmonton.**—Erection.—Of detached handicraft room in playground of Silver-st. school, N.18, for E.C. E. O. Taylor, Brettenham-rd., N.18. Dep. 10s.

**Edmonton.**—Reconstruction.—Of lavatories at Eldon-rd. school, N.9, for E.C. E. O. Taylor, Director and Secretary, Brettenham-rd., Edmonton, N.18. Dep. 10s.

**Godalming.**—Repair.—And renovation works, and internal and external decoration to Council's sewage pumping station at Unstead, and heating system to same premises, for T.C. G. B. Hartfree, B.S. Dep. £1 1s. each.

**Hadleigh.**—Instruction Centre.—At Council school, for West Suffolk E.C. County Architect, 55, Westgate-st., Bury St. Edmunds. Dep. £1 1s.

**Halstead.**—Sheds.—20 tool sheds, rear of houses on Kings Head housing estate, for U.D.C. W. A. Nicholson, S.

**Harmondsworth.**—Cottages.—36, at The Moor, for Yiewsley and West Drayton U.D.C. W. T. Morgan, E. and S. Dep. £2 2s.

**Hull.**—Installation.—Of electrical at junior and senior departments of Ainthorpe-grove school, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

**Hull.**—Installation.—Of low-pressure hot water heating and domestic hot water supply apparatus for proposed senior and junior departments, Ainthorpe-grove school, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

**Hull.**—Installation.—Of electric lighting and heating of new weights and measures premises, Alfred Gelder-st., for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

**Ilford.**—Extension.—960 lin. yds. of oak pale fencing on boundaries of Barkingside cemetery, for T.C. B.E. Dep. £1.

**Kensington.** — Repainting. — Of street lamps columns and lanterns throughout the borough, for B.C. B.E.

**Leeds.**—Painting.—Exterior only, Market Hall, for T.C. Fred Broadbent, F.R.I.B.A., architect.

**London.**—Baths.—Pithead baths at Kibblesworth Colliery, Lamesley, Co. Durham and Bentinck Colliery, Kirkby-in-Ashfield, Notts, for Miners' Welfare Committee, Westminster, S.W.1. Secretary, Miners' Welfare Committee, Romney House, Marsham-st., S.W.1.

**Manchester.**—Rebuilding.—Of retaining wall and gables of buildings between railway bridge (Ashburys Station) at Huddleston-st., for T.C. City E. Dep. £3 3s.

**Nottingham.**—Screen House.—At sewage disposal works, Stoke Bardolph, for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

**Oldham.**—Tiling.—Of floors and walls in connection with extension to Public Assistance Offices, Rochdale-rd., for T.C. B.E. and S.

**Ossett.**—Repainting.—And redecorating of portion of interior of town hall, offices and public hall, for T.C. B.S.

**Reading.**—Library.—Public library at junction of Northumberland-av. and Cressingham-rd. on Whitley housing estate, for C.B. Housing Architect. Dep. £2 2s.

**Stockton-on-Tees.**—Painting.—Of railings and gates at North End recreation ground and railings in Norton-av., with bitumastic paint, for T.C. B.E.

**Sunderland.**—Greenhouses.—And toolhouses, for C.B. B.E.

**Weston-super-Mare.**—Installation.—Of heating, hot water and ventilating systems, at police station, for Somerset C.C. A. J. Toomer, County Architect, Park-st., Taunton.

**Yiewsley and West Drayton.**—Cottages.—36, at The Moor, Harmondsworth, also roads and sewers in connection therewith, for U.D.C. W. T. Morgan, E. and S. Dep. £2 2s.

**Yorkshire.**—Various Works.—At Batley Grammar School and Wath Grammar School, for West Riding C.C. Education Officer, County Hall, Wakefield.

### SEPTEMBER 25.

**Belfast.**—Nurses' Home.—At Royal Victoria Hospital. W. H. Stephens & Sons, chartered surveyors, 13, Donegall-sq. North. Dep. £5 5s.

**Bolton.**—Shops.—And arcade in Bradshawgate, for T.C. B.E. and S.

**Bradford.**—Slater's Work.—In re-roofing 20 houses at Clayton, for T.C. City Architect, Town Hall.

**Clifton (York).**—Building.—New occupational workshop for male patients at hospital, and for demolition of certain existing outbuildings, for Visiting Committee. H. H. Dryland, Clerk to Visiting Committee, North Riding Mental Hospital, York. Dep. £1 1s.

**Dundalk.**—Houses.—50 workmen's dwellings and works incidental thereto, for U.D.C. Joseph F. Doris, Town S. Dep. £5.

**Evesham.**—Filter House.—And other work in connection therewith, for T.C. J. Abbott, B.S. Dep. £2 2s.

**Liverpool.**—Completion.—Of buildings for development of public park, Dovecot Park, Pilch-lane, Knotty Ash, for T.C. Land Steward and Surveyor.

**Liverpool.**—Conveniences.—Sefton Park, for T.C. Land Steward and Surveyor.

**Peterborough.**—Houses.—33, on Park-lane estate, west side, off Padholme-rd., for T.C. W. H. A. Court, City E. and S. Dep. £2 2s.

**Walsingham.**—Houses.—40, at Fakenham, Norfolk, for R.D.C. G. W. Little, Bridge-st., Fakenham, Norfok. Dep. £2 2s.

**Waltham Abbey.** — Extensions. — To Isolation Hospital in Honey-lane, for Waltham Joint Hospital Board. E. A. Gale, Clerk. Dep. £5 5s.

### SEPTEMBER 26.

**Blaenau Festiniog.**—Clinic.—For King Edward VII. Welsh National Memorial Association. R. C. Jones, L.R.I.B.A., Blaenau Festiniog. Dep. £2 2s.

***Essex.**—Erection.—Of temporary school building at Hornchurch Elm Park estate, for C.C. J. Stuart, County Architect, Chelmsford. Dep. £1 1s.

***Essex.**—Erection.—Of temporary school building at Hornchurch Rush Green Council school, for C.C. J. Stuart, County Architect, Chelmsford. Dep. £1 1s.

***Hardingstone.**—Erection.—Of 16 houses at Yardley-Hastings, for R.D.C. E. F. Goulding, 28, Guildhall-rd., Northampton. Dep. £1 1s.

***Kettering.**—Extensions.—To offices and stores of electricity dept., Rockingham-rd., for U.D.C. E and S., 3, Gold-st. Dep. £2 2s.

**Liverpool.**—Erection.—Of 180 tenement buildings and 2 shops on Myrtle-st. site, for Corporation. Director of Housing, Municipal Annexe, Dale-st. Dep. £2 2s.

**London.**—Painting.—92 maisonettes, Mount Pleasant-hill, and 5 blocks of flats at Southwold-rd., for Hackney B.C. P. Holt, B.E. and S. Dep. £1 1s. each.

**Lunesdale.**—Painting.—Exterior of Isolation Hospital, Farleton, for R.D.C. Edward Ellis, Sanitary Surveyor, Hornby Hall, nr. Lancaster.

**Newcastle-on-Tyne.**—Alterations.—For conversion into lecture-room at City Hospital for Infectious Diseases, Walkergate, for T.C. City Estate and Property Surveyor.

**Northallerton.**—Houses.—44, at Vicar's Croft, for U.D.C. S. Dep. £1 1s.


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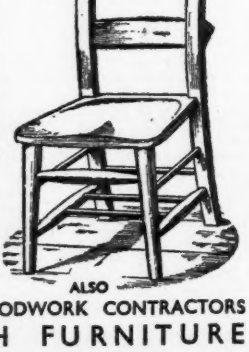

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**Sturminster.**—Painting.—And repair works, of fire station, Sturminster Newton, and providing and laying reinforced concrete raft foundations, also repairing cracks in outer walls, at 10, Child Okeford, for R.D.C. J. S. Ackerman, S.

**Wivenhoe.**—Painting.—Of 16 houses, Rectory-rd., for U.D.C. R. H. Barrell, S.

**Woodstock.**—Painting.—External of 34 houses at Hensington Within, for T.C. W. Austin Daft, A.R.I.B.A., 6a, Cornmarket-st., Oxford.

### SEPTEMBER 27.

**Aberystwyth.**—Houses.—38, at Penparke and block of 3 self-contained flats in Portland-rd., for T.C. Llewelyn Jones, B.S., Corporation Offices, Park-av. Dep. £5.

**Coulsdon.**—Erection.—Of 4 pairs of cottages and extension of sewer work to existing drains at Netherne mental hospital, for Surrey C.C. F. J. Hodgson, 201, High-st., Guildford. Dep. £1 1s.

**Kiveton Park.**—Houses.—16 class A.3 at Harthill, Todwick and Woodsetts, for R.D.C. W. M. Gibson, S.

**Tavistock.**—Houses.—4 at Bere Alston, 2 at Chillaton, and 2 at Little Horrabridge, Walkhampton, for R.D.C. T. H. Harris, architect, Council Office.

**Wool-Bovington.**—Additions.—And alterations to Council school, for Dorset C.C. County Architect, Dorchester.

### SEPTEMBER 28.

**Bentley.**—Installation.—Extension of low-pressure hot water apparatus and installation of electric light to additional classrooms, etc., at High-st. Council school, for West Riding C.C. Education Officer, County Hall, Wakefield.

**Billesden.**—Houses.—8, in pairs at Billesdon, for R.D.C. W. E. Moore & Son, F. & A.R.I.B.A., Barclay's Bank-bldgs., High-st., Leicester. Dep. £2 2s.

**Dunmow.**—Strongroom.—And certain other work at Council House, High-st., for R.D.C. J. Plumbley, Council House.

***Southampton.**—Erection.—Of employment exchange, for H.M.O.W. Room 66D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

**Thornbury.**—Convenience.—For R.D.C. F. W. Davies, S., High-st.

### SEPTEMBER 29.

**Broadhembury.**—House.—At Colliton, for E. Lawrence. R. J. Tucker, architect, Summerland, Honiton. Dep. £1 1s.

**Edinburgh.**—Partitions.—Removing existing wood dressing boxes and erecting new boxes of precast terrazzo slabs and reinforced concrete partitions, at Dalry baths, for T.C. E. J. MacRae, F.R.I.B.A., City Architect.

**Harrow.**—Car Park.—And attendant's lodge at swimming bath at Christchurch-av., Wealdstone, for U.D.C. J. Percy Bennetts, S.

**South Cambridgeshire.**—Painting.—Exterior of 182 Council cottages, for R.D.C. W. Richardson, clerk, Linton.

**Wednesbury.**—Houses.—9 non-parlour type and 1 house and shop combined, Hobs-rd. (Yardley's buildings) site, for T.C. A. Booth, L.R.I.B.A., B.E. and S. Dep. £2 2s.

### OCTOBER 1.

**Birmingham.**—Painting.—At female annexe, late Fever Hospital, of Winson Green Mental Hospital, Lodge-rd., for T.C. D. E. Turner, L.R.I.B.A., Committee's Chief Officer of Works, Hollymoor Mental Hospital, Northfield. Dep. £3 3s.

**Brighton.** — Airport.—Preparation of landing ground, seeding and diversion of streams and other incidental work, at airport, for Brighton, Hove and Worthing Municipal Airport. Stavers H. Tiltman, L.R.I.B.A., architect, 42, Middle-st. Dep. £5 5s.

**Bury St. Edmunds.**—School.—Senior school for accommodation of 880 scholars, for T.C. Naish & Mitchell, architects, 8, Hatter-st.

**Dublin.**—Houses.—560, at North Lotts housing area, for T.C. City Treasurer, Exchange-bldgs., Lord Edward-st. Dep. £5 5s.

***Rotherham.**—Erection.—Of junior school, Coleridge-rd., and heating and hot water installation therefor, for Corporation. Vincent Turner, B.E. Dep. £2 2s.

### OCTOBER 2.

**Hemsworth.**—Boosting Station.—At Badsworth, near Pontefract, for R.D.C. W. T. Lynam, E. and S., Market-chambrs. Dep. £2 2s.

**Kidwelly.**—Houses.—18, upon Hillfield estate, for T.C. J. E. Vaughan Evans, M.I.M. and Cy.E. Dep. £3 3s.

**Liverpool.**—House.—At Llanforda, near Oswestry, for T.C. The Resident Engineer, Llanforda Filters, Oswestry. Dep. £1 1s.

**Richmond.**—Erection.—Of 70 houses, for T.C. B.E., Hotham House, Heron-court, Richmond, Surrey. Dep. £2 2s.

**Shoreditch.**—Reconstruction.—Of floor at Pitfield-st. Baths, for B.C. B.S., Old-st., E.C.1. Dep. £2 2s.

**Southend.** — Demolition. — Of cottage stables, outbuildings and stores at rear of 93, London-rd., for Corporation. R. H. Dyer, B.E. and S. Dep. £1.

**Swansea.**—Erection.—Of branch public library at Oystermouth, for C.B. Borough Architect, 3, Prospect-pl. Dep. £2.

**Swansea.** — Erection. — Of nursery school at Nelson-terr., for E.C. Borough Architect, 3, Prospect-pl. Dep. £2.

### OCTOBER 3.

**Castle Donnington.**—Houses.—4, at Station-rd., for R.D.C. Arthur Eaton & Son, architects, Derby. Dep. £3 3s.

**Hertfordshire.**—Erection.—Of new County Council school on Osidge estate, Chase-side, East Barnet Valley, for C.C. A. E. Prescott, C.S., Hatfield. Dep. £2 2s.

***Islington.**—Demolition.—Alteration and reconstruction of premises at Electricity Works, Edengrove, for accommodation of switchgear, for B.C.

E. C. P. Monson, Finsbury Pavement House, 120, Moorgate, E.C.2. Dep. £3.

***Southampton.**—Houses.—238, on Coxford housing site, for C.B. R. R. H. Meggeson, T.C. Dep. £3 3s.

**OCTOBER 4.**

**Caterham and Warlingham.**—Cottages.—7, for U.D.C. S.

**Kington.**—Cottages.—6 in 3 pairs at Park-av., for U.D.C. John R. Swindells, clerk, 2, High-st. Dep. £1 1s.

**Manchester.** — Erection. — Yew Tree Municipal senior school, Wythenshawe, for E.C. Surveyor's Dept., Deansgate, Manchester. Dep. £2 2s.

**Southend-on-Sea.** — Garages. — At Corporation's Depot, London-rd., for T.C. Arthur C. Johnson, Borough Electrical Engineer and Manager, Electricity Works, 85, London-rd.

**OCTOBER 5.**

**Hinckley.**—Police Station.—With courts, constables' flats and superintendent's house, for Leicestershire C.C. W. Keay, F.R.I.B.A., County Architect, 6, Millstone-lane, Leicester. Dep. £2 2s.

**OCTOBER 6.**

**St. Ives (Hunts).**—Houses.—34, at Needingworth-rd., for T.C. H. E. Lavender, Son & Close, architects, 65, Bridge-st., Walsall. Dep. £2 2s.

**OCTOBER 8.**

**Bishop's Stortford.**—Houses.—38, together with sewer and road construction, at London-rd., for U.D.C. V. T. Groocock, S. Dep. £3 3s.

***Daventry.**—Houses.—25, at Byfield, and construction of roads and sewers, for R.D.C. J. B. Williams, The Moot Hall. Dep. £1 1s.

**OCTOBER 10.**

***Stamford.**—Houses.—41, on Cemetery-rd. site, for T.C. F. R. Ryman, B. Eng. Dep. £2 2s.

**Wood Green.**—External Decoration.—Of fire station at Bounds Green-rd., for T.C. R. H. Matthews, E. and S. Dep. £1 1s.

**OCTOBER 11.**

**Shipley.**—Rebuilding.—Of boys' and girls' conveniences, Woodend Council School, for U.D.C. H. Dawson, surveyor and architect.

**OCTOBER 13.**

**Doncaster.**—Installation.—Of central heating, hot-water services and ventilation, at Nether Hall, for R.D.C. Ernest Griffiths, 21, The Temple, Dale-st., Liverpool.

***Oldbury.**—Erection.—Of Warley Bleakhouse Council School, for U.D.C. Engineer and Surveyor, Municipal Bank Chambers, Oldbury, Birmingham. Dep. £2.

**OCTOBER 15.**

***Southport.**—Erection.—Of club house on site of existing at Municipal Golf Links, Park-rd., for Corporation. B. Eng. Dep. £3 3s.

**York.**—Demolition.—And removal of prison buildings and enclosing wall on York Castle site, for T.C. F. W. Spurr, City Engineer. Dep. £1 1s.

**OCTOBER 16.**

***Croydon.**—Erection.—Of maternity block at Mayday Hospital, for C.B. John M. Newnham, T.C. Dep. £5 5s.

***Hendon.**—Erection.—Of semi-permanent school and caretaker's bungalow at Sturges-av., for B.C. A. O. Knight, B. Eng. Dep. £4 4s.

***Leicester.**—Erection.—Of extensions to second portion of County Offices, Greyfriars and Friar-lane, for C.C. Wm. Keay, County Architect, 6, Millstone-lane. Dep. £2 2s.

**NO DATE.**

**Devonport.**—Painting.—External wood and iron work of Royal Albert Hospital and Eye Infirmary, for Committee. F. Rowe, secretary.

**Inverness.**—Pavilion.—At Bught, for T.C. A. F. MacKenzie, F.R.I.B.A, Town House.

**Watersmeet.**—Bungalows.—3, for C. D. Attree. C. D. Attree, Glen Lyn, Lynton.

## MATERIALS, etc.

**SEPTEMBER 24.**

**Batley.**—Bitumen.—Supplying and laying 140 tons of filled bitumen, for T.C. B.E.

**Burgess Hill.**—Granite.—For U.D.C. W. E. Hancock, S.

**Litherland.**—Pitching.—Red shale and stone pitching, for U.D.C. Geo. Ponsford, E. and S.

**Slough.**—Pipes.—2,400 yds. 3-in. and 4-in. C.I. pipes, for U.D.C. Water E.

**SEPTEMBER 25.**

**Birmingham.**—Paving Block.—100,000 Columbian pine wood paving blocks, for T.C. H. H. Humphries, City E. and S.

**Lindsey, Lincs.**—Cement.—For C.C. Arthur G. Bradshaw, C.S., County Offices, Newland, Lincoln.

**SEPTEMBER 26.**

**Chelmsford.**—Maintenance Materials.—For T.C. V. J. Willis, B.E. and S.

**SEPTEMBER 27.**

**Wilts.**—Road Materials, etc.—For C.C. H. S. Ganderton, C.S., Trowbridge.

**SEPTEMBER 29.**

**Shrewsbury.**—Supply.—Of furniture at Oswestry Technical Institute, for Salop C.C. W. H. Pendlebury, Secretary for Education, Shrewsbury.

## ENGINEERING, IRON AND STEEL.

**SEPTEMBER 24**

**Egypt.**—Remodelling.—Assiut barrage and Ibrahimia head regulator, for Ministry of Public Works of the Egyptian Government. Coode, Wilson, Mitchell & Vaughan-Lee, consulting engineers, 9, Victoria-st., London, S.W.1.

**Hull.**—Bridge.—Over Foredyke stream, Montrose-st., for T.C. H. Hamer, City E. Dep. £2.

**Margate.**—Reservoir.—Covered concrete service reservoir at Fleete, near Margate, for T.C. E. A. Borg, B.E., 40, Grosvenor-pl. Dep. £5 5s.

**Mere and Tisbury.**—Laying.—Of four miles of small asbestos-cement and galvanised steel water mains and a small concrete reservoir for R.D.C. Arthur J. Martin, engineer, 106, St. George-sq., Westminster, S.W.1. Dep. £3 3s.

**SEPTEMBER 25.**

**Kington.**—Pulling Down.—And rebuilding Arrow Bridge, over River Arrow, for Herefordshire C.C. C.S., High Town, Hereford. Dep. £5 5s.

**SEPTEMBER 27.**

**Yeovil.**—Water Supply.—At Tintinhull, for R.D.C. C. A. Wilson, S., 28, Kingston, Yeovil. Dep. £2 2s.

**SEPTEMBER 29.**

**Inverness.**—Reconstruction.—Of Holm bridge, on Inverness-Dores-rd., for C.C. R. Robertson, C.S., Inverness. Dep. £1.

**OCTOBER 1.**

**Wincanton.**—Sewerage.—At Milborne Port, for R.D.C. A. P. I. Cotterell & Son, engineers, 54, Victoria-st., Westminster, S.W.1. Dep. £3 3s.

**OCTOBER 3.**

**Birmingham.**—Sewerage.—For Perry Barr sewerage, section 4, and Upper Cole Valley sewer, for T.C. H. H. Humphries, City E. and S. Dep. £2.

**OCTOBER 4.**

**Kidsgrove.**—Reconstruction.—Of Avenue Bridge, for Staffs C.C. C.S., County Buildings, Stafford. Dep. £5.

**Southend-on-Sea.**—Drainage.—For Eastern District surface water drainage, including construction of tidal arm chamber and incidental works, for C.B. R. H. Dyer, B.E. and S. Dep. £2.

**Staffordshire.**—Reconstruction.—Of Brook End Bridge, for C.C. C.S., Stafford. Dep. £5.

**OCTOBER 9.**

**Tynemouth.**—Culvert.—Short length of reinforced concrete culvert, at Preston, North Shields, for C.B. J. L. Beckett, B.S., 19-20, Howard-st. North Shields. Dep. £2 2s.

**OCTOBER 18.**

**Egypt.**—Stations.—Three complete electric pumping stations with the necessary building work, machinery and accessories, at Northern Nile Delta at Fua, Balamoan and Serw, for Ministry of Public Works. Director-General, Mechanical and Electrical Dept., Ministry of Public Works, Cairo, or 41, Tothill-st., S.W.1. Charge £3 1s. 6d.

**OCTOBER 20.**

**Menai Bridge.**—Alterations.—At St. George's landing-stage, Menai Bridge, for U.D.C. Wilton & Bell, consulting engineers, 69, Victoria-st., Westminster, London, S.W.1. Dep. £2 2s.

**NO DATE.**

**Penicuik.**—Reservoir.—On Quarrel Burn, together with ancillary works, consisting of pipe track and filter beds, for T.C. Hunter, Duff & Middleton, chartered civil engineers, 42, Frederick-st., Edinburgh. Dep. £5.

## ROAD, SEWERAGE AND WATER WORKS.

**SEPTEMBER 24.**

**Batley.**—Surfacing.—Supplying and laying 10,000 sup. yds. of asphalt surfacing, for T.C. B.E.

**Finchley.**—Reconstruction.—Of 9 in. soil sewer, Shakespeare-rd., Finchley, for B.C. Percival T. Harrison, B.E. and S., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £2.

***Harmondsworth.**—Roads.—And sewers in connection with erection of cottages at the Moor, for Yiewsley and West Drayton U.D.C. W. T. Morgan. E. and S. Dep. £2 2s.

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**Scarborough.**—Kerbing.—Laying of concrete foundation, kerbing, etc., in Filey-rd., for T.C. J. Paton Watson, B.E.

**SEPTEMBER 25.**

**Barnet.** — Making-up. — Of Hillside-gdns., for U.D.C. Alfred S. Mays, clerk, Old Court House, Wood-st.

**Isle of Ely.**—Construction.—Of approx. 800 lin yds. of concrete road, for C.C. C.S., County Hall, March. Dep. £5.

**SEPTEMBER 27.**

**Cheltenham.**—Sewer.—Relief sewer between High-st., intercepting sewer and River Chelt, for T.C. G. Gould Marsland, B.E. Dep. £1 1s.

**Harpenden.** — Making-up. — Amenbury-lane and Kirkdale-rd., for U.D.C. W. H. Johnson, S., Harpenden Hall.

**SEPTEMBER 28.**

**Ashby Woulds.**—Drainage.—Of Spring Cottage Area, for U.D.C. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester. Dep. £2 2s.

**Merton and Morden.**—Street Works.—In various parts of district, for U.D.C. G. Jerram, E. and S. Dep. £1.

**SEPTEMBER 29.**

**Esher.**—Making-up.—Of Hurstfield-rd., West Molesey, for U.D.C. S.

**Scarborough.**—Sewer.—In Eastborough and Newborough, from Sandside to St. Nicholas-st., for T.C. J. Paton Watson, Borough and Water Engineer. Dep. £2.

**OCTOBER 1.**

**Bakewell.**—Construction.—Of about 7,500 lin. yds. glazed ware sewers and other works, for U.D.C. M. G. & R. W. Weekes, civil engineers, 75, Victoria-street, Westminster, S.W.1. Dep. £2 2s.

**Haslemere.** — Paving. — Laying approximately 9,130 sq. yds. of single-coat gravel bituminous asphalt, for U.D.C. C. A. Best, S.

**Leatherhead.**—Making-up.—In 9 in. hardcore and 2 in. bituminous surfacing of Dawnay-rd., Great Bookham, for U.D.C. E. and S. Dep. £1 1s.

**OCTOBER 2.**

**Bromley.**—Asphalt.—In Burnt Ash-lane and Chislehurst-rd., for T.C. H. Cliffe, B.E.

**OCTOBER 3.**

**Acton.**—Making-up.—Of Kathleen-av. and Back Passage between 197 and 199, High-st., for T.C. W. G. Cross, B.E. Dep. £2 2s.

**Lewisham.**—Paving.—And forming roadway and footways of Ewelme-rd., Forest Hill, for B.C. J. W. Shuter, T.C., Town Hall, Catford, S.E.6.

**OCTOBER 4.**

**Southend-on-Sea.** — Making-up. — Of Eastbourne-grove, Elmsleigh-drive (Section 2), Hobleythick-lane, Prittlewell-chase (Section 1), and Westbourne-grove (Section 7) and incidental works, for C.B. R. H. Dyer, B.E. and S. Dep. £1.

**OCTOBER 8.**

**Daventry.**—Houses.—25, at Byfield and construction of necessary roads and sewers, for R.D.C J. B. Williams, The Moot Hall. Dep. £1 1s.

**OCTOBER 9.**

**Harrow.**—Reconstruction.—Of Sheepcote-rd., for Middlesex C.C. C.E., 10, Great George-st., S.W.1. Dep. £5 5s.

**Middlesex.**—Reconstruction.—Of three sections of Kenton-rd., Harrow and Wembley, for C.C. C.E. and S., 10, Great George-st., S.W.1. Dep. £10 10s.

**Southall.**—Reconstruction.—Of Uxbridge-rd., between Brent Bridge, Hanwell, and Southall Park, for Middlesex C.C. C.E. and S., 10, Great George-st., S.W.1. Dep. £10 10s.

**Wembley** — Widening. — And reconstruction of Forty-lane, for Middlesex C.C. C.E. and S., 10, Great George-st., S.W.1. Dep. £3 3s.

**OCTOBER 10.**

**Birmingham.** — Reconstruction. — Of Rea main sewer from Lawley-st. to Macdonald-st., for T.C H. H. Humphries, City E. and S. Dep. £2.

## Public Appointments.

**SEPTEMBER 28.**

**Cardiff.**—Assistant Lecturer in Welsh School of Architecture.—For E.C. W. J. Williams, City Hall.

**SEPTEMBER 30.**

**Bolton.**—Assistant to Architect of Education Authority.—For C.B. Director of Education, Nelson-sq.

**OCTOBER 1.**

**Nottingham.** — Quanity Surveyor. — For T.C. T. Wallis Gordon, City E. and S.

***Wakefield.**—Two Quantity Surveying Assistants (Temporary).—For West Riding of Yorkshire C.C. Education Officer, County Hall, Wakefield.

**OCTOBER 2.**

**Northallerton.** — Town Planning Officer. — For North Riding C.C. H. G. Thornley, clerk.

**OCTOBER 3.**

***Ipswich.**—Senior Architectural Assistant.—For East Suffolk C.C. Cecil Oates.

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### The Kut Barrage, Iraq.

The tender of Messrs. Balfour, Beatty and Co., Ltd., 66, Queen-street, Cheapside, E.C., has been accepted by the Iraq Government for the construction of the proposed Kut barrage. The contract price amounts to about £1,000,000. The plans have been prepared by Messrs. Coode, Wilson, Mitchell and Vaughan-Lee, 9, Victoria-street, S.W.1, consulting engineers to the Iraq Government.

# CURRENT & PROPOSED BUILDING WORK*

**Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; B.S. for Borough Surveyor; B.E. for Borough Engineer; D.S. for District Surveyor; C. for Clerk; T.C. for Town Clerk; C.E. for County Engineer; C.S. for County Surveyor; S. for Surveyor; E. for Engineer.**

**Aberdare.**—M.H. sanctioned borrowing of £3,021 for swimming baths at Aberaman.

**Barnsley.**—T.C. are contemplating open-air swimming bath in Locke-pk., and recommends preparation of lay-out plan for 170 houses on land in Mount Vernon-rd.

**Baldock.**—U.D.C. approved: Lay-out plan for 300 houses in London-rd., for H. Gentle.

**Beaconsfield.**—S. S. Timmis decided to have Butlers Court rebuilt.

**Bebington.**—New school, to be known as Stanton-rd. Council school, is to be erected, and Cheshire E.C. are inviting tenders for work.

**Belfast.**—Libraries, Museum and Art Committee of the Corporation propose completing unfinished Art Gallery at £50,000.

**Blyth.**—T.C. propose to build 187 houses in connection with slum clearance. L. Leeper, B.E.

**Bolton.**—T.C. propose reconstruction of Market Hall at £15,000.—Bolton branch of Y.M.C.A., Deansgate, propose extension of premises. Plans by D. Wynne-Thomas, of Wynne-Thomas and Button, architects, 25, Wood-st. Estimated cost £2,500 to £3,000.

**Brigg.**—Lindsey C.C. considering senior elementary Council school and to convert Glebe-rd. old school into school for juniors.

**Bristol.**—Housing Committee recommended five slum-clearance schemes, comprising 72 houses, in Philadelphia-st., Water-st., Narrow-weir, Clarke's-court (West-st.), and Railway-ter. (York-st.).

**Bruton.**—Scheme for redecoration and renovation of 19 cottages has been placed before Somerset C.C. for grants. Architect, W. Lancelot Andrews, A.I.A.A., Stoke-st., Gregory, Taunton. Tenders to be invited shortly.

**Burnley.**—T.C. propose reconstruction of canal bridge at Mitre Junction at £9,000. Plans by B.E.

**Carmarthen.**—Maternity block costing £30,000 to be provided at county infirmary.

**Cheltenham.**—T.C. approved:—Corporation, 132 houses, The Moors, Tewkesbury-rd.; F. Yeates, 62 houses, Arle-rd.; Gloucestershire Marketing Society, covered market.

**Darlington.**—T.C. approved:—Bussey & Armstrong, 20 houses, Brinkburn-av.; Dunn & Dunwell, for Sister Superior, additions, Southend school, Coniscliffe-rd.

**Doncaster.**—Currie & Co. (Newcastle), Ltd., Cambridge Hall, Northumberland-rd., Newcastle-on-Tyne, proposes warehouse and stores at Bennethorpe. Architects, W. & T. R. Milburn, 17, Fewcett-st., Sunderland. No contracts.

**Easingwold.**—Scheme for 3 new pavilions at Institution for Defectives at £30,000 been approved. Plans by J. C. White, architect, County Hall, Northallerton.

**East Ellos.**—R.D.C to erect 80 houses at Holbeach, 36 houses at Gedney and 18 houses at Whaplode. Tenders to be shortly invited.

**Eccles.**—T.C. approved:—W. H. Fletcher & Sons, 92 houses, extension of Napier-rd., and two new roads, to be called Trever-rd. and Garner-drive.

**Fletton.**—Open-air swimming bath to be constructed at site opposite Fletton Lodge by London Brick Co. and Forders, Ltd.

**Godstone.**—R.D.C. approved: Lay-out for 24 cottage flats on Gincox Farm, Hurst Green. Oxted. for Limpsfield and Oxted Cottage Co. Cottage flats designed by W. G. Coles.

**Hampshire.**—E.C. to extend senior mixed school in Wildern-lane, Hedge End.

**Hebburn-on-Tyne.**—U.D.C. to apply to M.H. for sanction to build 55 houses. Architects, T. A. Page & Son, 67, King-st., South Shields.—Plans by Cackett, Burns-Dick & McKellar, 26, Ellison-pl., Newcastle, for wool store and alterations to existing stores at A. Reyrolle & Co., Ltd.'s, works.—U.D.C. decided to schedule houses in Ellison-st., James-st., Victoria-st., Quality-row, Chapel-row, Solomon-row, Elm-st., Ash-st., Oak-st., and High Lane-row as clearance areas.

**Hemsworth.**—R.D.C. to proceed immediately with 100 houses for aged persons in South Elmsall, South Kirkby, Upton, Ackworth, Brierley, Havercroft, and South Hiendley.

**Howden.**—R.D.C. received sanction from M.H. to erection of 26 houses.

**Leeds.**—Corporation inviting tenders for crematorium, offices, superintendent's house and conveniences at Cottingley Hall cemetery, Elland-rd. Plans by Architects' Section, Civic Hall.

**Leek.**—Longden & Venables, 60, St. Edward's-st., architects for extensions to head office for Leek and Moorlands Building Society.

**Leicester.**—T.C. approved: 218 houses to be built in Victoria-rd. East, by F. Craven, of West Hartlepool, at £80,000.

**Liverpool.**—H. Burroughs, 50, Smithfield-st., architect for stores and warehouse for Northern Distilleries Co., Ltd., Strand-rd.

**London (Stoke Newington).**—B.C. approved: Chesterton & Sons, to drain proposed electricity sub-station, Victoria-rd.

**Macclesfield.**—T.C. received sanction to borrow £23,023 for 82 houses, Moss-lane estate.

**Manchester.**—Plans approved by T.C.:—21 houses, Manley-rd. and Marlborough-av., Whalley Range, A. Hartley & Son, Ltd., Mauldeth-rd., Withington; alterations to "Grand" hotel, Aytoun-st., Hope-st. and Chatham-st., Grand Hotel, Ltd.; alterations to premises, 252-253, Oxford-rd., Chorlton-upon-Medlock, conversion of house into hostel, Lister House, Nelson-st., Council Victoria University; showroom, offices and works to premises, Gouldens., Mason-st., Hatter-st. and Marshall-st., Manchester, Marsden Harcombe & Co., Ltd., Cross Keys-st.; additions to factory and offices, Longley-lane, Northenden, Washway Manufacturing Co., Ltd.; alterations and additions to premises, Parsonage-chams., The Parsonage, and Parsonage-lane, Deansgate, Manchester, Commercial Buildings, Ltd., 17, Cross-st.; alterations and additions to "Crown" inn, Wilmslow-rd. and York-st., Didsbury, Groves & Whitnall, Ltd., Regent-rd. Brewery, Salford; 21 lock-up garages and 6 houses, off Foglane, Didsbury, Richard Turley, "Credenda," Chorlton-cum-Hardy; alterations to bank, Moss-lane West and Clarence-grove, Moss Side, Williams Deacons Bank, Ltd., 38, Mosley-st.; Sunday school to church, Moorton-av. and Burnage-lane, Burnage, Burnage Congregational Church Committee; additions to Gorton and Openshaw Trades Hall, Booth-st., Gorton, Gorton and Openshaw Building Society, 19, Elm-st., Gorton; 32 houses, Albany-st., Rosina-st., Ashbrook-st. and Hobson-st. and Broadway, Openshaw, Fairholme Estate, Ltd., 44, Brazennose-st.; golf club house, off Palatine-rd., Northenden, Northenden Golf Club; club house, off Howden-rd., Blackley, St. Claire's Athletic Club (John Singleton, secretary), 7, Howden-rd., Blackley; church, adjoining Hollyhedge Farm, Hollyhedge-av. and Woodhouse-lane, Northen Etchells, Rev. Colin Lamont, Hollyhedge Farm.

**Market Drayton.**—W. Moss, 13, George-st., Hanley, architect for canning factory between Kiln Bank-lane and Walkhill-rd., for Shropshire Canning Syndicate, 2, St. Mary's-st.

**Meriden.**—Plans approved by R.D.C.:—15 pairs houses, C. B. Payne, Fillingley-lane, Astley; Scouts and Guides headquarters, Birmingham-rd., Water Orton, First Water Orton Scouts.

**Middlesbrough.**—Plans being prepared for extensions, including new gallery and workshop, at Dormer Museum at £2,000. S. E. Burgess, B.E.

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**Middlesbrough.**—Parochial Council of St. James' Church propose church in Crescent-rd. Vicar, Rev. G. F. Townley. Architect not yet appointed.

**Nelson.**—T.C. approved: 26 houses in Walton-lane and Marsden Hall-rd., for A. Smith.

**Newburn.**—U.D.C. to negotiate for land for 150 houses.

**Newcastle-on-Tyne.**—£3,000 raised towards hall and church entrance at St. Luke's Church, Spital Tongues. Other additions are also proposed and total cost is understood to be £8,000. Architects, Wood & Oakley, 9, Eldon-sq.—Marshall & Tweedy, Mervyn House, Pilgrim-st., architects for additions to premises of Avery & Co., Prudhoe-pl.—Plans by J. Oswald & Son, 2, Worswick-st., for rebuilding "Railway Inn," Shields-rd., owned by Newcastle Breweries, Ltd., been approved. No contract placed.—Architects for additions to National Deposit Friendly Society's premises, North-ter., are Cackett, Burns-Dick & McKellar, 26, Ellison-pl.—Scheme for clinic at general hospital been approved. F. H. Holford, City Architect.—R. Burke, 12, Grey-st., architect for warehouse and showrooms in Westgate-rd. for Penny Johnson, Ltd. Contract not placed.

**Nottingham.**—E.C. recommending T.C. adoption of scheme for secondary school at Bestwood-pk. at £50,000.

**North Petherton.**—Plans prepared by W. Lancelot Andrews, A.I.A.A., of Stoke-st., Gregory, Taunton, for lay-out for 6 residences and street off Taunton-rd.; also pair of semi-detached houses.

**North Walsham.**—The foundation stone of new church has been laid. E. Bower Norris, F.R.I.B.A., is the architect, and will cost £3,000.

**Oldham.**—T.C. to apply to M.H. for loan of £48,966 for 124 two-bedroomed type non-parlour houses and 16 bungalows at Roundthorn, and £33,156 for 88 two-bedroomed type non-parlour houses and 8 bungalows at Hathershaw.

**Roundhay.**—Electricity Dept. of Leeds Corporation to invite tenders for electricity transformer station at West Park-pl. Plans by Department's Staff Architect, 1a, Whitehall-rd., Leeds.

**Ryton-on-Tyne.**—U.D.C. approved 52 houses. Plans by J. P. Dalton, S.

**Scarborough.**—North Riding E.C. proposes additions to pavilion at Oliver's Mount. Plans by F. R. White, County Architect, Northallerton.—F. Baker, York-pl., Scarborough, taken out plans for additions to premises in St. Thomas-st. for Scarborough and District Bill Posting Co.

**Sheffield.**—T.C. propose construction of public wash-houses at Brightside and Heeley baths and at Oakes Green at £30,210.—E.C. propose extensions at King Edward VII School at £10,000.—Edgar Gardham, A.R.I.B.A., Mazda-buildings, Campo-lane, architect for flats in Duke-st., Park. for A. Krausz, Rockingham-st.—T.C. approved:—28 houses and 3 garages, Marsh-lane and Headland-rd., T. V. & W. L. Simpson; 1 house and pavilion, Norton-lane, Transport Dept. Sports Club; house and club house, Beauchief Golf Course, Parks and Burial Grounds Committee.

**Spalding.**—U.D.C. propose fire station, etc., at £3,000.

**Stockton-on-Tees.**—A. E. Hobbs, builder, Hill House, Norton-on-Tees, to develop land known as Clarence Potteries and build 50 houses. Plans by G. P. Stainsby, 25, High-st.—F. Craven, builder, Liverpool-bldgs., West Hartlepool, to develop estate west of Ida-st. and south of L.N.E.R. 78 houses proposed.—Alterations to be carried out to premises of Gallons, Ltd., 47, Norton-rd. Architects, Gribbon & Foggit, 3, Park-pl., Leeds.

**Swansea.**—C.B. resolved that lay-out, plans and estimate for 212 houses at Townhill be approved and application made to M.H. for £22,424 for roads and sewers for houses.—Council resolved that Trewyddfa Common be decided upon as next site to be utilised for further houses in connection with Corporation's slum-clearance scheme.—Mouchel & Partners, Westminster, are to be instructed to prepare necessary detailed plans and estimates for open-air swimming bath on Foreshore.—For Clydach and Bwlfa sewerage, extensions of Llansamlet rising main, and pumping station at Wychtree-st., Chief E. submitted plans and estimates for work at £20,000.—Plans passed:—22 houses, Llangyfelach-rd. and new road No. 9, Penlan estate, Treboeth, R. N. K. Colley; addition to warehouse, Orchard-st., R. James; 26 houses, Brynawel-crescent, Treboeth, L. H. Samuel; school, Derwen Fawr-rd., Rev. Rees Howells; 28 houses, Townhill-rd. and new street, Syd Davies; lock-up shops and offices, Union-st. and Orange-st., W. P. Phillips Powell; additions at rear of Uplands-crescent, Swansea Co-operative Society.

**Upton-by-Chester.**—North of England Zoological Society propose aquarium building.

**Ulverston.**—U.D.C. approved: 62 houses on Devonshire-rd. housing estate (No. 5 housing scheme).

**Wakefield.**—Home Stores, Ltd., Baker-st., N.W.1, to erect branch stores at Kirkgate, Wakefield. Plans by Mr. Farman, staff architect.

**Wath-on-Dearne.**—P.C. acquired Empire Cinema for conversion into parish hall.

**Wednesbury.**—Rector, Rev. C. R. Cook, and Parochial Council of St. James' Church propose improvements, etc., to church and schools at £3,000.

**Weston-super-Mare.**—U.D.C. have instructed S. to prepare plans for open-air bath on sands. Also purchase land for extension to Bourneville housing estate at £6,200.

**Willington.**—U.D.C. to erect 90 houses. Architect, J. H. Gardner, Council Offices.

**Wolviston.**—Plans by W. & T. R. Milburn, 17, Fawcett-st., Sunderland, for hotel to be built by Vaux & Co., Sunderland, been approved.

**Wrexham.**—R.D.C. to build 80 more houses at Rhos and 60 at Cefn.

**Ystradgynlais.**—Under slum-clearance scheme 76 houses to be demolished, 110 repaired, and 82 new houses built.

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* See also List of Contracts open.

*** **In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

# PRICES CURRENT OF MATERIALS.*

**Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry**

## BRICKS, &c.

Per 1,000 Alongside, in River Thames up to Mortlake.

| | £ s. d. |
|---|---|
| Best Stocks | 4 2 0 |
| Second Hard Stocks | 3 10 0 |

Per 1,000. Delivered at London Goods Stations.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| "Phorpres" | 2 11 3 | Flettons, B'll'n'se Best Blue | 3 6 3 |
| Flettons at King's Cross | 2 11 3 | Pressed Staffs | 8 5 0 |
| Do., grooved for Plaster | 2 13 3 | Do. Bullnose | 8 15 0 |
| | | Blue Wire Cuts | 7 0 0 |

White Midhurst Facing Bricks (delivered London site) ..... 5 0 0
"Phorpres" whites (do.) ..... 3 17 3
"Phorpres" Rustic Facing Bricks, delivered Central London ..... per 1,000 3 12 3
Best Stourbridge Fire Brick:—
2½ in. ..... 7 15 0 3 in. ..... 8 15 0

GLAZED BRICKS—

| | | | |
|---|---|---|---|
| Best White Ivory and Salt Glazed Stretcher | 21 0 0 | D'ble Str'tch'rs | 29 10 0 |
| | | D'ble Headers | 26 10 0 |
| | | One side and two Ends | 30 10 0 |
| Headers | 20 10 0 | Two sides and one End | 31 10 0 |
| Quoins, Bullnose and 4½ in. Flats | 27 10 0 | Splays and Squints | 28 0 0 |

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

## PARTITION SLABS.

Delivered London Area.

CLINKER CONCRETE.

| | | | |
|---|---|---|---|
| 2" per yd. sup. | 1 6 | 3" per yd. sup | 2 0 |
| 2½" " " | 1 8 | 4" " " | 2 4 |

CRANHAM TERRA COTTA.

| | | | |
|---|---|---|---|
| 2" per yd. sup. | 3 0 | 3" per yd. sup. | 3 8 |
| 2½" " " | 3 6 | 4" " " | 4 7 |

HEMPSTEAD—KEYED TWO SIDES.

| | | | |
|---|---|---|---|
| 12" × 9" × 2" | 2 3 | 12" × 9" × 3" | 2 9 |
| 12" × 9" × 2½" | 2 6 | 12" × 9" × 4" | 3 6 |

Per yard super d/d. Free on site, London.

| | s. d. | |
|---|---|---|
| Thames Ballast | 7 3 per yd. | |
| Pit Ballast | 6 3 " " | delivered |
| Pit Sand | 7 9 " " | 2 miles |
| Washed Sand | 8 3 " " | radius |
| ¼ in. Shingle | 7 3 " " | Padding- |
| ½ in. Broken Brick | 11 3 " " | ton. |
| Pan Breeze | 8 3 " " | |

## CEMENT.

Best British Portland Cement, Standard Specification, delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

| | £ s. d. |
|---|---|
| 4 ton loads and upwards site ..... Per ton. | 1 18 0 |
| 1 ton to 4 tons site | 2 0 0 |
| Alongside Vauxhall in 80-ton lots ..... | 1 14 0 |
| "Ferrecrete" Rapid Hardening Cement:— | |
| 4 ton loads and upwards site ..... | 2 4 0 |
| 1 ton to 4 tons site | 2 6 0 |
| Alongside Vauxhall in 80-ton lots ..... | 2 0 0 |

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett if returned in good condition within three months, carriage paid.

| | |
|---|---|
| "Colorcrete" Nos 1 and 2 Coloured Rapid Hardening Portland Cement in 1 cwt. paper bags free (non-returnable) in 1-ton lots and upwards site | 3 6 0 |
| "Snowcrete" White Portland Cement in 1 cwt. paper bags free (non-returnable) 1 ton and upwards site | 8 15 0 |
| Super Cement (Waterproof) paper bags free | 3 8 0 |
| Roman Cement | 6 15 0 |
| Parian Cement | 5 15 0 |
| Keene's Cement, White | 5 15 0 |
| " " Pink | 5 10 0 |

## PLASTER.

| | |
|---|---|
| Plaster, Coarse, Pink | 2 12 0 |
| " " White | 2 17 6 |
| " Fine | 5 0 0 |
| Sirapite, Coarse | 3 5 0 |
| " Finish | 3 13 0 |
| Grey Stone Lime | 2 2 0 |
| Chalk Lime | 2 2 0 |
| Best Ground Blue Lias Lime | 1 17 6 |
| Hair ..... per cwt. | 2 2 6 |
| Granite Chippings | 1 12 0 |

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d., if returned in good condition within three months carr. pd.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep.

## STONE.

| | s. d. |
|---|---|
| BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube | 2 10 |
| BEER STONE—RANDOM BLOCK— | |
| Free on rail at Seaton Station, per ft. cube | 2 3 |
| Delivered free on rail Nine Elms, S.R., per ft. cube | 3 1½ |
| Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra. | |
| PORTLAND STONE— | |
| Brown Whitbed; in random blocks of 20ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube | 4 4½ |
| Do. do. delivered on road waggons at above stations, per ft. cube | 4 5½ |
| White basebed, 3d. per ft. cube extra. | |
| NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft. | |
| HOPTON-WOOD STONE— | |
| F.O.R. Quarries Wirksworth, Derbyshire, Random blocks from 10ft. and over P.ft.cb. | s. d. 14 0 |
| Sawn two sides | 22 6 |
| Sawn, three or four sides | 27 9 |
| CHILMARK—RANDOM BLOCK— | |
| At Nine Elms, per ft. cube | 3 11 |
| YORK STONE, BLUE—*Robin Hood Quality.* | |
| Delivered at any Goods Station London. | |
| 6 in. sawn two sides landings to sizes (under 30 ft. super) .....Per ft. super | 5 6 |
| 6 in. rubbed two sides, ditto ..... " | 6 0 |
| 3 in. sawn two sides slabs (random sizes) " | 2 3½ |
| 2 in. to 2½ in. sawn one side slabs (random sizes) ..... " | 1 6½ |
| 1½ in. to 2 in., ditto ..... " | 1 3½ |
| HARD YORK— | |
| Delivered at any Goods Station, London. | |
| Scappled random blocks.....Per ft. cube | 6 3 |
| 6 in. sawn two sides landing to sizes (under 40 ft. super).....Per ft. super | 5 1½ |
| 6 in. rubbed two sides, ditto .. " | 6 1½ |
| 4 in. sawn two sides slabs (random sizes) " | 3 1½ |
| 3 in. ditto ditto " | 2 8 |
| 2 in. self-faced random flags ..Per yd. super | 7 6 |

## CAST STONE.

Delivered in London area in full van loads, per ft cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

## SOFT WOOD.

GOOD BUILDING DEAL.

| Inches. | Per stan. | Inches. | Per stan. |
|---|---|---|---|
| 4 × 11 | £23 10 | 3 × 6 | £18 10 |
| 4 × 9 | 22 10 | 3 × 11 | 19 10 |
| 4 × 8 | 21 0 | 2 × 11 | 19 10 |
| 4 × 7 | 19 0 | 3 × 9 | 19 10 |
| 3 × 8 | 18 0 | 2½ × 9 | 19 10 |
| 3 × 7 | 18 10 | 3 × 4½ | 18 0 |
| 2½ × 7 | 18 10 | 3 × 4 | 18 0 |

PLANED BOARDS.

| | | | |
|---|---|---|---|
| 1 × 11 | £22 10 | 1 × 9 | £21 0 |

PLAIN EDGE FLOORING.

| Inches. | per sq. | Inches. | per sq. |
|---|---|---|---|
| ¾ | 16/- | 1½ | 26/- |
| ¾ | 17/- | 1½ | 32/6 |
| 1 | 20/- | | |

TONGUED AND GROOVED FLOORING.

| Inches. | per sq. |
|---|---|
| 1 | 21/- |
| 1¼ | 26/- |
| 1½ | 32/6 |

MATCHING (BEST).

| Inches. | per sq. |
|---|---|
| ⅝ | 16/- |
| ¾ | 18/6 |
| 1 | 22/6 |

| ins. BATTENS. | s. d. |
|---|---|
| ¾ × 2 ..per 100 ft. | 2 6 |

SAWN LATHS.

| Per bundle .... | s. d. 2 3 |
|---|---|

## HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.

| | £ s. d. |
|---|---|
| Dry Austrian Wainscot, per ft. cube | 0 15 0 |
| Dry American and/or Japanese Figured Oak, per ft. cube | 0 12 0 |
| Dry American and/or Japanese plain Oak, per ft. cube | 0 10 0 |
| Dry sq. edged Honduras Mahogany, per ft. cube | 0 14 0 |
| Dry log-cut Honduras Mahogany, per ft. cube | 0 16 6 |
| Dry Cuba Mahogany, per ft. cube | 1 1 0 |
| Dry Teak, per ft. cube | 0 14 0 |
| Dry American Whitewood, per ft. cube | 0 10 0 |
| Best Scotch Glue, per cwt. | 3 0 0 |
| Liquid Glue, per cwt. | 4 7 0 to 5 10 0 |

## SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| 24 by 12 .. | 29 15 0 | 18 by 10 .. | 15 12 6 |
| 22 by 12 .. | 25 0 0 | 18 by 9 .. | 13 15 0 |
| 22 by 11 .. | 22 10 0 | 16 by 10 .. | 13 10 0 |
| 20 by 12 .. | 22 0 0 | 16 by 8 .. | 10 7 6 |
| 20 by 10 .. | 19 7 6 | | |

## TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

| | £ s. d. |
|---|---|
| Best machine-made tiles from Broseley or Staffordshire district | £4 7 0 |
| ditto hand-made ditto | 5 0 0 |
| Ornamental ditto | 5 8 6 |
| Hip and valley tiles (per dozen) } Hand-made | 0 9 6 |
| Machine-made | 0 9 0 |

## METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

| | |
|---|---|
| R.S. Joists, cut and fitted | £11 0 0 |
| Plain Compound Girders | 12 0 0 |
| " " Stanchions | 15 0 0 |
| In Roof Work | 18 0 0 |

MILD STEEL ROUNDS.—To London Station, per ton.

| Diameter. | £ s. d. | Diameter. | £ s. d. |
|---|---|---|---|
| ⅜ in. | 12 0 0 | ⅝ in. to ¾ in. | 10 15 0 |
| ½ in. | 11 0 0 | ⅞ in. to 2½ in. | 10 10 0 |

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

| | Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅛ in. to 6 in. | Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅛ in. to 6 in. | Standard Fittings Sizes ⅛ in. to 6 in. | Standard Flanges Sizes ⅛ in. to 6 in. |
|---|---|---|---|---|
| | % | % | % | % |
| Gas | 65 | 52½ | 57½ | 70 |
| Water | 61½ | 48½ | 52½ | 65 |
| Steam | 57½ | 45 | 47½ | 60 |
| Galv. gas | 52½ | 40 | 47½ | 60 |
| Galv. water | 47½ | 35 | 42½ | 55 |
| Galv. steam | 42½ | 30 | 37½ | 50 |

C.I. HALF-ROUND GUTTERS—London Price ex Works

| Per yd. in 6 ft. lengths. | Gutters. | Angles and Nozzles. | Stop Ends. |
|---|---|---|---|
| 3 in. | 1/5½ | 1/1½ | 4½d. |
| 3½ in. | 1/6½ | 1/3 | 5½d. |
| 4 in. | 1/6½ | 1/4½ | 6½d. |
| 4½ in. | 1/8 | 1/6½ | 9½d. |
| 5 in. | 1/10½ | 1/8½ | 10d. |

O.G. GUTTERS.

| | | | |
|---|---|---|---|
| 3 in. | 1/7½ | 1/5½ | 7d. |
| 3½ in. | 1/9½ | 1/5½ | 7½d. |
| 4 in. | 1/11 | 1/6½ | 8½d. |
| 4½ in. | 2/0 | 1/9½ | 9½d. |
| 5 in. | 2/4½ | 2/0½ | 11½d. |

RAIN WATER PIPES, &c.

| Per yd. in 6 fts. | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| 2 in. | 2/2½ | 1/4½ | 2/0 |
| 2½ in. | 2/3½ | 1/6½ | 2/4½ |
| 3 in. | 2/9½ | 1/11 | 2/10½ |
| 3½ in. | 3/3½ | 2/3½ | 3/3½ |
| 4 in. | 3/9 | 2/9 | 4/0½ |

Less 20 per cent. trade discount.

Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock.

| | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| | s. d. | s. d. | s. d. |
| 2 in. per yd. in 6 fts. | 2 8 | 1 11 | 2 3 |
| 2½ in. " .. | 3 0 | 2 1 | 2 10 |
| 3 in. " .. | 3 4 | 2 3 | 3 5 |
| 3½ in. " .. | 3 7½ | 2 10 | 3 11 |
| 4 in. " .. | 4 0 | 3 2 | 4 6 |

L.C.C. COATED DRAIN PIPES—London Prices ex Stock.

| | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| | s. d. | s. d. | s. d. |
| 3 in. per yd. in 9 ft. lengths cwt. qr. lbs. | 3 0 | 4 6 | 7 0 |
| 4 in. " 1 1 20 .. | 4 9 | 5 6 | 8 9 |
| 5 in. " 1 2 22 .. | 5 10 | 9 6 | 13 6 |
| 6 in. " 2 0 6 .. | 6 10 | 12 0 | 18 0 |

Gaskin for jointing 41/- per cwt.

| | Per ton in London. £ s. d. | | £ s. d. |
|---|---|---|---|
| IRON— | | | |
| Common bars | 10 0 0 | to | 10 10 0 |
| Staffordshire Crown Bars— | | | |
| Good merchant quality | 10 10 0 | to | 11 0 0 |
| Staffordshire Marked Bars | 14 0 0 | .. | 15 0 0 |
| Mild Steel Bars | 9 0 0 | .. | 10 0 0 |
| Steel Bars, Ferro-Concrete quality, basis price | 8 10 0 | .. | 9 0 0 |
| Hoop iron, basis price | 11 0 0 | .. | 12 0 0 |
| " Galvanised | 27 10 0 | .. | 28 10 0 |
| Soft Steel Sheets, Black— | | | |
| Ordinary sizes, to 20 g. | 11 0 0 | .. | 11 10 0 |
| " " " 24 g. | 12 0 0 | .. | 13 0 0 |
| " " " 26 g. | 14 0 0 | .. | 15 0 0 |
| Sheets Flat Best Soft Steel, C.R. and C.A. quality— | | | |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. | 14 0 0 | .. | 15 0 0 |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g. | 15 0 0 | .. | 16 0 0 |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. | 17 10 0 | .. | 18 10 0 |

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—

| | | | |
|---|---|---|---|
| Ordinary sizes, 6 ft. to 9 ft. to 20 g. | 13 10 0 | .. | 15 0 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g. | 15 10 0 | .. | 16 10 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 26 g. | 16 10 0 | .. | 18 0 0 |
| Sheets, Galvanised Flat, Best quality— | | | |
| Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker | 14 10 0 | .. | 16 10 0 |
| Best Soft Steel Sheets, 22 g. and 24 g. | 15 0 0 | .. | 17 0 0 |
| Best Soft Steel Sheets, 26 g. | 16 10 0 | .. | 18 0 0 |
| Cut Nails, 3 in. to 6 in. | 15 10 0 | .. | 17 0 0 |

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

## COPPER.

| | s. d. |
|---|---|
| Seamless Copper tubes (basis) ..... per lb. | 0 9 |
| Strong sheet ..... " | 0 10 |
| Thin ..... " | 0 11 |
| Copper nails ..... " | 1 0 |
| Copper wire ..... " | 0 11 |

## PLUMBERS' BRASS WORK.

Delivered in London

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. | |
|---|---|---|---|---|---|---|
| 29/- | 45/- | 76/- | 153/- | 246/- | 510/- | per doz. |

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. | |
|---|---|---|---|---|---|---|
| 41/6 | 62/- | 92/- | 174/- | 300/- | 588/- | per doz. |

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

## PRICES CURRENT OF MATERIALS—(contd.).

RIVER PATTERN SCREW DOWN MAIN FERRULES.

| ½ in. | ¾ in. | 1 in. |
|---|---|---|
| 39/- | 60/- | 116/6 per doz. |

CAPS AND SCREWS.

| 1¼ in. | 1½ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|---|
| 7/6 | 10/- | 14/- | 22/- | 30/- | 42/- per doz. |

DOUBLE NUT BOILER SCREWS.

| ½ in. | ¾ in. | 1 in. | 1½ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 7/6 | 11/- | 17/- | 29/- | 36/- | 63/- per doz. |

BRASS SLEEVES.

| 1½ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|
| 10/- | 12/- | 20/- | 24/- | 31/- per doz. |

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. |
|---|---|---|---|---|
| 35/- | 56/- | 98/- | 162/- | 228/- per doz. |

DRAWN LEAD P. & S. TRAPS WITH GRASS CLEANING SCREW.

| | 1½ in. | 1½ in. | 2 in. | 3 in. | |
|---|---|---|---|---|---|
| 8 lbs. P. traps .. | 33/- | 41/- | 56/- | 101/- | per doz. |
| 8 lbs. S. traps .. | 35/- | 45/- | 66/- | 126/- | ,, |

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumbers' 1/-, Tinmen's, 1/2, Blowpipe, 1/3 per lb.

### LEAD, &c.

| (Delivered in London.) | £ | s. | d. |
|---|---|---|---|
| LEAD—Sheet, English, 4 lb. and up | 18 | 0 | 0 |
| Pipe in coils | 16 | 10 | 0 |
| Soil pipe | 24 | 10 | 0 |
| Compo pipe | 25 | 0 | 0 |

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 4s. per cwt. extra, and over 3 cwt. and under 5 cwt., 2s. 6d. per cwt. extra. Cut to sizes, 4s. cwt. extra.

| | | | |
|---|---|---|---|
| Old lead, ex London area, at Mills.....per ton | £9 | 0 | 0 |

### PAINTS, &c.

| | £ | s. | d. |
|---|---|---|---|
| Raw Linseed Oil, in pipes .... per gallon | 0 | 2 | 6 |
| ,, ,, ,, in barrels .... ,, | 0 | 2 | 8 |
| ,, ,, ,, in drums .... ,, | 0 | 2 | 11 |
| Boiled ,, ,, in barrels .... ,, | 0 | 2 | 9 |
| ,, ,, ,, in drums .... ,, | 0 | 2 | 11 |
| Turpentine, in barrels ..... ,, | 0 | 3 | 11 |
| ,, in drums (10 galls.) ,, | 0 | 4 | 1 |
| Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.) | 44 | 0 | 0 |

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

GENUINE WHITE LEAD PAINT.

| "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered | £ | s. | d. |
|---|---|---|---|
| Red Lead, Dry (packages extra).... per ton | 62 | 0 | 0 |
| Best Linseed Oil Putty .....per cwt. | 31 | 0 | 0 |
| Size, XD quality .....fkn. | 0 | 13 | 6 |
| | 0 | 3 | 0 |

### VARNISHES, &c.

| | | Per gallon | |
|---|---|---|---|
| Oak Varnish .....Outside | | 0 | 14 | 0 |
| Fine ditto ..... | ditto | 0 | 16 | 0 |
| Fine Copal ..... | ditto | 0 | 18 | 0 |
| Pale Copal ..... | ditto | 1 | 0 | 0 |
| Pale Opal Carriage ..... | ditto | 1 | 4 | 0 |
| Best ditto ..... | ditto | 1 | 12 | 0 |
| Floor Varnish ..... | Inside | 0 | 18 | 0 |
| Fine Pale Paper ..... | ditto | 0 | 18 | 0 |
| Fine Copal Cabinet ..... | ditto | 1 | 2 | 0 |
| Fine Copal Flatting ..... | ditto | 1 | 0 | 0 |
| Hard Drying Oak ..... | ditto | 0 | 18 | 0 |
| Fine Hard Drying Oak ..... | ditto | 0 | 19 | 6 |
| Fine Copal Varnish ..... | ditto | 1 | 0 | 6 |
| Pale ditto ..... | ditto | 1 | 12 | 0 |
| Best ditto ..... | ditto | 1 | 2 | 6 |
| Best Japan Gold Size ..... | | 0 | 12 | 6 |
| Best Black Japan ..... | | 0 | 10 | 0 |
| Oak and Mahogany Stain (water) ..... | | 0 | 12 | 0 |
| Brunswick Black ..... | | 0 | 7 | 6 |
| Berlin Black ..... | | 0 | 14 | 0 |
| Knotting (patent) ..... | | 0 | 15 | 0 |
| French and Brush Polish..... | | 0 | 12 | 0 |
| Liquid Dryers in Terebene ..... | | 0 | 9 | 0 |
| Cuirass Black Enamel ..... | | 0 | 7 | 0 |

### GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

| per ft. | | per ft. | |
|---|---|---|---|
| 15 oz. fourths .. | 2½d. | 32 oz. fourths ..... | 6½d. |
| 15 ,, thirds .... | 2¾d. | 32 ,, thirds ..... | 8½d. |
| 21 ,, fourths .. | 3½d. | Obscured Sheet, 15 oz. | 3d. |
| 21 ,, thirds .... | 3¾d. | ,, ,, 21 ,, | 4½d. |
| 26 ,, fourths .. | 4½d. | Fluted, 15 oz. 6½d., 21 oz. 9d. | |
| 26 ,, thirds .... | 5½d. | Em'lld, 15 oz. 4½d., 21 oz. 5½d. | |

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

| | Per ft. |
|---|---|
| Rolled plate ¼ in. ..... | 4½d. |
| Rough rolled ⅜ in. ..... | 5½d. |
| Rough rolled ½ in. ..... | 5½d. |
| Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White .... | 5½d. |
| Ditto, tinted ..... | 8d. |
| Rolled Sheet ..... | 4½d. |
| White Rolled Cathedral ..... | 5d. |
| Tinted ditto ..... | 7½d. |

Cast plate is same price as rough rolled.

| "VITA." GLASS. | Per ft. s. | d. |
|---|---|---|
| Clearsheet—not exceeding 1 foot ..... | 1 | 0 |
| Do. do. 2 feet ..... | 1 | 3 |
| Do. over 2 feet ..... | 1 | 9 |
| Polished plate—not exceeding 1 foot ..... | 1 | 6 |
| Do. do. 2 feet ..... | 3 | 0 |
| Cathedral—not exceeding 1 foot ..... | 1 | 0 |
| Do. larger sizes ..... | 1 | 6 |
| Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet ..... | 1 | 0 |
| 3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide..... | 2 | 6 |

# NEW BUILDINGS IN SCOTLAND

*The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at* THE BUILDER *Office not later than Wednesday*

ABERDEEN. — CHURCH. — The Aberdeen Presbytery of the Church of Scotland has feued from the University authorities a piece of ground at the corner of King-street and Regent-walk, where a new church is to be built. The Presbytery also approved the plans of a new church at Hilton.

ABERDEEN. — BLOCK. — The Corporation have approved of the erection of a special block at the new Royal Infirmary at Foresthill. Mr. Jas. B. Nicol, architect, 367, Union-street, Aberdeen.

AIRDRIE.—POOL.—The T.C. has obtained a site for the erection of a new swimming-pool and baths, at £12,000.

ARBROATH.—HOUSING.—The T.C. has approved that the architect be instructed to prepare plans for the erection of a three-story flatted tenement of three apartments.

BELLSHILL. — HOUSES. — Permission has been given to the Police Committee of Lanark C.C. to erect a number of houses for police officers at Bellshill, near the Academy.

DARVEL.—BUILDING.—The T.C. have had warrant granted by the Dean of Guild Court for houses at 83-89, West Main-street, and at West Edith-street. Warrant was also granted to the managers of Darvel E.U. Congregational Church for extensions to the church hall.

DINGWALL.—ACADEMY. — The Scottish Education Department has approved plans for a new academy at an estimated cost of £50,000.

DUMBARTON.—HOUSES.—The T.C. has agreed to purchase from Mr. Cunninghame Graham further land at Brucehill for the erection of more houses under the 1930 Act. It is proposed to erect 40 houses on the ground adjacent to the present housing scheme.

DUNDEE.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer :—Erskine-street, garage and store, for G. Taylor and Co., architects, Gordon and Scrymgeour, 7, Ward-road; Esplanade, Broughty Ferry, alterations and additions, for Carrie Shand, architect, Joseph Johnston, 32, Bank-street; Fairbairn-street, etc., houses, for the T.C.; 3, Glenaffric-terrace, garage, for D. C. Samson, architect, Joseph Johnston; 74, 76, Murraygate, alterations, for Wilsons (1933), Ltd., architect, A. D. Hislop, 124, St. Vincent-street, Glasgow; and Tofthill, alterations, for Mrs. Croft and Mrs. Robb, architects, Maclaren, Soutar and Salmond, 15, South Tay-street.

DUNS. — HOUSING. — The T.C. Housing Committee have agreed to recommend the Council to adopt a housing scheme under the Housing (Rural Workers), Scotland, Act.

FORRES.—HOUSES.—The T.C. are to inspect a number of sites for the purpose of erecting 50 houses.

GLASGOW.—HOUSING.—A large block of old tenement houses in the Dalmarnock district is to be demolished and replaced by new dwellings of modern type erected on the site by the Corporation. A decision to recommend the acquisition of the site was taken by the Insanitary Areas Sub-committee. The property to be purchased is situated in Reid-street, Savoy-street, Franklin-street, and Finnart-street.

GLASGOW.—BUILDING. — The Dean of Guild Court has granted the following :—Savings Bank of Glasgow, 177, Ingram-street—bank premises at 370-372, Cumbernauld-road; J. Meiklejohn, 12, Park-terrace—four shops at 1,575-1,585, Shettleston-road; Corporation Water Department — pumping station at King's Park; and Glasgow Royal Mental Hospital—nurses' quarters at the hospital, Great Western-road.

GLASGOW.—EXTENSION.—A £46,500 extension scheme for the municipal workshops for the blind at Possilpark has been approved by the Glasgow and South-West Scotland Joint Committee for the Blind.

GLASGOW. — HOUSING.—The Corporation Housing Committee has decided to proceed with 186 houses at Elmvale-row, and 54 houses at Haghill.

GLASGOW.—CHURCH.—Plans have been approved by the Dean of Guild for the erection of a new church on the north side of Carntyne-road. The new building is to be used as an auxiliary chapel for St. Thomas', Riddrie parish.

HAMILTON. — HOUSING. — The Town Council have approved a lay-out plan providing for 900 new houses on ground at Udston. The scheme will be a three-group one, with 300 houses in each section.

HUNTLY.—RESERVOIR.—The T.C. are to build a reservoir at an estimated cost of £11,550. The decision was arrived at following the report of Messrs. J. & A. Leslie, civil engineers, Edinburgh, under whose supervision the work of sinking the piles at the site of the proposed dam has been carried out.

KEITH.—COTTAGES.—The T.C. are to erect three blocks of two four-apartment houses at 6 and 7, Wellington-terrace, 20-22, Fife-street, and 8, Balloch-road. Two-story double cottages of three apartments are also to be erected at 30 and 38, Land-street.

MONTROSE.—HOUSES.—The T.C. has decided to erect 30 houses of three apartments and eight houses of four apartments.

MOTHERWELL. — EXTENSION. — The Corporation have agreed to an extension scheme to the maternity home at Airbles-street, at between £5,000 and £6,000.

ROSS-SHIRE. — HOUSING.—The C.C. are proposing to erect 22 houses at Ullapool, and 14 houses at Kyle.

# BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. Painters by ruling of the Scottish National Painters' and Decorators' Joint Council, have from January 1 new rates. Grade A towns, 1/6 per hour; Grade B, 1/4; Aberdeen has a special rate of 1/5½. The new rate for Plasterers has been fixed at 1s. 6½d. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

| Grade Classification ... | A | A¹ | A² | A³ | B | B¹ | B² | B³ |
|---|---|---|---|---|---|---|---|---|
| Craftsmen ... | 1/6 | 1/5½ | 1/5 | 1/4½ | 1/4 | 1/3½ | 1/3 | 1/2½ |
| Labourers ... | 1/1½ | 1/1½ | 1/0½ | 1/0½ | 1/0 | /11½ | /11½ | 11 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Aberdeen | A | Dundee | A | Hawick | A² | Perth | A |
| Airdrie | A | Dumfermline | A | Helensburgh | A | Perthshire | A² |
| Alexandria | A | Dunoon | A | Inverness | B | Peterhead | A² |
| Arbroath | A² | East Lothian | A | Kilmarnock | A | Renfrewshire | A |
| Ayrshire | A | Edinburgh | A | Kincardineshire | A² | Rothesay | A |
| Bathgate | A | Falkirk | A | Kinross-shire | A | Roxburghshire | A² |
| Bo'ness | A | Forfarshire | A² | Kirkcaldy | A | St. Andrews | A |
| Broughty Ferry | A | Fort William | B | Lanarkshire | A | Selkirkshire | A |
| Clackmannanshire | A | Galashiels | A² | Leith | A | Stirling | A |
| Coatbridge | A | Glasgow | A | Midlothian | A | Stirlingshire, West | A |
| Dumbartonshire | A | Greenock | A | Motherwell | A | West Lothian | A |
| Dumfries | A² | Hamilton | A | Peeblesshire | A² | Wishaw | A |
| Dumfriesshire | A² | | | | | | |

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 513.

# CURRENT PRICES FOR BUILDING WORK IN LONDON*

## EXCAVATOR.

| | | s. | d. |
|---|---|---|---|
| Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep | per yard cube | 8 | 9 |
| Add if in clay | " " | 1 | 0 |
| Add for every additional depth of 6 ft. | " " | 0 | 6 |
| Planking and strutting to trenches | per foot super | 0 | 3 |
| Do. to sides of excavation, including shoring | " " | 1 | 0 |

## CONCRETOR.

| | | s. | d. |
|---|---|---|---|
| Portland cement concrete in foundations 1 to 6 | per yard cube | 24 | 3 |
| Add if in underpinning in short lengths | " " | 5 | 6 |
| Add if in floors 6 in. thick | " " | 2 | 3 |
| Add if in beams | " " | 2 | 9 |
| Add if aggregate 1 : 2 : 4 | " " | 9 | 0 |
| Add for hoisting not exceeding 10 ft. beyond the first 10 ft. | " " | 2 | 0 |

## BRICKLAYER.

| | | £ | s. | d. |
|---|---|---|---|---|
| Reduced brickwork in lime mortar and Fletton bricks | per rod | 27 | 0 | 0 |
| Add if in stocks | " | 7 | 0 | 0 |
| Add if in Staffordshire blues | " | 22 | 0 | 0 |
| Add if in Portland cement and sand | " | 1 | 5 | 0 |

FACINGS.

| | | s. | d. |
|---|---|---|---|
| Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks | per ft. super | 0 | 0 | 1¼ |

POINTING.

| | | s. | d. |
|---|---|---|---|
| Neat flat struck or weathered joint | " " | 0 | 0 | 3 |

ARCHES.

| | | s. | d. |
|---|---|---|---|
| Extra only to the price of ordinary brickwork :— | | | |
| Fair external in half brick rings | " " | 0 | 0 | 10 |
| Axed in stocks | " " | 0 | 0 | 9 |
| Rubbed and gauged jointed in putty camber or segmental | " " | 0 | 6 | 0 |

SUNDRIES.

| | | s. | d. |
|---|---|---|---|
| Damp course in double course of slates breaking joint and bedded in Portland cement | " " | 0 | 0 | 11 |
| Setting ordinary register grates and stoves | each | 1 | 0 | 0 |
| Setting kitchener, including forming flues, &c., with all necessary fire bricks | " | 4 | 15 | 0 |

## ASPHALTER.

| | | s. | d. |
|---|---|---|---|
| Half-inch horizontal damp course | per yard super | 4 | 6 |
| Three-quarter-inch vertical damp course | " " | 9 | 6 |
| Three-quarter-inch on flats in two thicknesses | " " | 6 | 0 |
| Angle fillet | per foot run | 0 | 3 |
| Skirting and fillet 6 in. high | " " | 1 | 0 |

## MASON.

| | | s. | d. |
|---|---|---|---|
| York stone templates fixed | per foot cube | 12 | 9 |
| York stone sills fixed | " " | 22 | 0 |
| Bath stone and all labour fixed | " " | 10 | 6 |
| Beer stone and all labour fixed | " " | 15 | 0 |
| Portland stone fixed | " " | 15 | 6 |
| Chilmark stone fixed complete | " " | 16 | 6 |

## SLATER.

| | | s. | d. |
|---|---|---|---|
| Welsh 16 in. × 8 in. 3 in. lap. including nails | per square | 78 | 6 |
| Do. 20 in. × 10 in. Do. Do. | " | 80 | 6 |
| Do. 24 in. × 12 in. Do. Do. | " | 86 | 0 |

## CARPENTER AND JOINER.

| | | s. | d. |
|---|---|---|---|
| Fir framed in plates | per foot cube | 4 | 0 |
| Do. joists | " " | 4 | 6 |
| Do. roofs, floors and partitions | " " | 5 | 0 |
| Do. trusses | " " | 7 | 3 |

| | | ¾" | 1" | 1¼" | 2" |
|---|---|---|---|---|---|
| Deal rough close boarding | per sq. | 30/- | 35/- | 43/- | 70/- |

| | | s. | d. |
|---|---|---|---|
| Flat centering for concrete floor, including struts or hangers | " | 50 | 0 |
| Do. to beams | per ft. sup. | 0 | 9 |
| Centre for arches | " | 1 | 6 |
| Gutter boards and bearers | " | 1 | 0 |

FLOORING.

| | | ¾" | 1" | 1¼" | 1½" |
|---|---|---|---|---|---|
| Deal-edges shot | per sq. | — | 38/- | 45/- | 52/- |
| Do. tongued and grooved | " | — | 43/- | 50/- | 58/- |
| Do. matchings | " | 40/- | 45/- | — | — |
| Moulded skirtings, including backings and grounds | per ft. sup. | 1/4 | 1/7 | 1/9 | 2/3 |

SASHES AND FRAMES.

| | | s. | d. |
|---|---|---|---|
| One-and-a-half moulded sashes or casements | per foot super | 1 | 10 |
| Two Do. Do. Do. | " " | 2 | 1 |
| Add for fitting and fixing | " " | 0 | 3 |
| Deal cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights, average size | | 3 | 6 |

DOORS.

| | | 1½" | 1¾" | 2" |
|---|---|---|---|---|
| Two-panel square framed | per ft. sup. | 2/1 | 2/3 | 2/5 |
| Four-panel Do. | " | 2/4 | 2/6 | 2/9 |
| Two-panel moulded both sides | " | 2/6 | 2/9 | 2/11 |
| Four-panel Do. Do. | " | 2/9 | 2/11 | 3/2 |

## CARPENTER AND JOINER—continued.

FRAMES.

| | | s. | d. |
|---|---|---|---|
| Deal wrot moulded and rebated | per foot cube | 12 | 6 |

| | | 1" | 1¼" | 1½" |
|---|---|---|---|---|
| Plain deal jamb linings framed | per ft. sup. | 1/7 | 1/8 | 1/11 |
| Deal shelves and bearers | " | 1/2 | 1/4 | 1/7 |
| Add if cross-tongued | " | 2d. | 2d. | 2d. |

STAIRCASES.

| | | 1" | 1¼" | 1½" | 2" | 2½" |
|---|---|---|---|---|---|---|
| Deal treads and risers in and including rough brackets | | 2/1 | 2/4 | 2/9 | — | — |
| Deal strings wrot on both sides and framed | | 1/8 | 2/- | 2/2 | 2/8 | — |

| | | s. | d. |
|---|---|---|---|
| Housings for steps and risers | each | 0 | 11 |
| Deal balusters, 1 in. x 1½ in. | per ft. run | 0 | 9 |
| Mahogany handrail, average 3 in. x 3 in. | " " | 6 | 0 |
| Add if ramped | " " | 12 | 0 |
| Add if wreathed | " " | 24 | 0 |

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

| | | | |
|---|---|---|---|
| 6 in. barrel bolts | 8½d. | Rim locks | 2/- |
| Sash fasteners | 11½d. | Mortice locks | 4/6 |
| Casement fasteners | 1/5 | Patent spring hinges and letting into floor and making good | 19/- |
| Casement stays | 1/2 | | |
| Cupboard locks | 1/5 | | |

## FOUNDER AND SMITH.

| | | s. | d. |
|---|---|---|---|
| Rolled steel joists | per cwt. | 15 | 0 |
| Plain compound girders | " | 18 | 0 |
| Do. stanchions | " | 20 | 9 |
| In roofwork | " | 26 | 6 |

## RAIN-WATER GOODS.

| | | 3" | 4" | 5" | 6" |
|---|---|---|---|---|---|
| Half-round plain rebated joints | ft. run | 1/- | 1/1 | 1/3 | 1/6 |
| Ogee Do. Do. | " | 1/2 | 1/3 | 1/9 | 2/3 |
| Rain-water pipes with ears | " | 1/3 | 1/10 | — | — |
| Extra for shoes and bends | each | 2/9 | 3/11 | — | — |
| Do. stopped ends | " | 1/1 | 1/4 | 1/9 | 2/6 |
| Do. nozzles for inlets | " | 2/2 | 2/7 | 3/7 | 4/- |

## PLUMBER.

| | | s. | d. |
|---|---|---|---|
| Milled lead and laying in flashings and gutters | per cwt. | 38 | 0 |
| Do. do. flats | " | 37 | 0 |
| Extra labour and solder in coated cesspools | each | 6 | 9 |
| Welt joint | per ft. run | 0 | 6 |
| Soldered seam | " " | 1 | 3 |
| Copper nailing | " " | 0 | 3 |

| | | ½" | ¾" | 1" | 1¼" | 2" | 4" |
|---|---|---|---|---|---|---|---|
| Drawn lead waste | per ft. run | 1½ | 1/4 | 1/6½ | 2/5 | 2/8 | — |
| Do. service | " | 1/3 | 1/9 | 2/- | 3/- | — | — |
| Do. soil | " | — | — | — | — | — | 5/9 |
| Bends in lead pipe | each | — | — | — | — | 2/6 | 6/- |
| Soldered stop ends | " | 0/9 | 1/1 | 1/6 | 2/3 | 2/10 | — |
| Red lead joints | " | 0/10 | 0/11 | 1/2 | 1/9 | 2/1 | 4/3 |
| Wiped soldered joints | " | 2/3 | 2/9 | 3/0 | 3/10 | 4/10 | 6/- |
| Lead traps and cleaning screws | " | — | — | — | 10/6 | 14/- | — |
| Bib cocks and joints | " | 6/4 | 9/7 | 14/- | — | — | — |
| Stop cocks and joints | " | 12/4 | 14/2 | 20/8 | 54/- | — | — |

## PLASTERER.

| | | | s. | d. |
|---|---|---|---|---|
| Render, float and set in | lime and hair | per yard sup. | 2 | 0 |
| Do. Do. | Sirapite | " " | 2 | 3 |
| Do. Do. | Keen's | " " | 3 | 0 |
| Add saw lathing | | " " | 1 | 4 |
| Add metal lathing | | " " | 2 | 4 |
| (Not including hangers or runners, etc., for suspended ceilings.) | | | | |
| Portland cement screed | | " " | 2 | 2 |
| Do. plain face | | " " | 3 | 3 |
| Mouldings in plaster | | per 1 girth | 0 | 1½ |
| One-and-a-half granolithic pavings | | per yard sup. | 4 | 6 |

## GLAZIER.

| | | s. | d. |
|---|---|---|---|
| 21-oz. sheet plain | per foot sup. | 0 | 6½ |
| 26-oz. Do. | " " | 0 | 7½ |
| Obscured sheet | " " | 0 | 8 |
| ⅛-in. rolled plate | " " | 0 | 9 |
| ¼-in. rough rolled or cast plate | " " | 0 | 10 |
| ¼-in. wired cast plate | " " | 1 | 1 |

## PAINTER.

| | | s. | d. |
|---|---|---|---|
| Preparing and distempering, 2 coats | per yard sup. | 0 | 9 |
| Knotting and priming | " " | 0 | 7 |
| Plain painting, 1 coat | " " | 0 | 9 |
| Do. 2 coats | " " | 1 | 2 |
| Do. 3 coats | " " | 1 | 9 |
| Do. 4 coats | " " | 2 | 4 |
| Graining | " " | 2 | 3 |
| Varnishing twice | " " | 1 | 9 |
| Sizing | " " | 0 | 3 |
| Flatting | " " | 0 | 7 |
| Enamel | " " | 1 | 1 |
| Wax polishing | per foot sup. | 0 | 6 |
| French polishing | " " | 1 | 2 |
| Preparing for and hanging paper | per piece 2/- to | | 4/- |

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

# NEW CINEMAS

BELFAST. — Belfast Corporation has approved plans for a new cinema at Donegall-road for Mr. J. U. Finney.

CHESTER-LE-STREET.—Mr. E. M. Lawson, 19, Ridley-place, Newcastle-upon-Tyne, is architect for proposed additions to, and redecorating of, the Chester Cinema, Empire Theatre and Empire Ballroom, Chester-le-Street, taken over recently by Smelts Theatres, Ltd. The managing director is Mr. T. H. Smelt, Fellside House, Whickham, whose firm will carry out the work.

EDINBURGH.—The new cinema to be erected at Niddrie Mains, Edinburgh, for a company yet to be promoted, is planned by Mr. T. Gibson, architect, 30, Rutland-square, Edinburgh. The building, to cost £15,000, will seat 1,060 persons, including a balcony seating 312 persons.

GATESHEAD.—The T.C. has approved amended plans by Mr. E. M. Lawson, 19, Ridley-place, Newcastle, for a new cinema to be built by Mr. H. Smelt, builder, Gateshead and Low Fell.

GLASGOW.—A new cinema, capable of seating about 3,000 persons, is to be erected in the vicinity of Parkhead Cross, Glasgow. The plans of the building have been passed by the Dean of Guild Court for Mr. Bernard Frutin, theatre proprietor, 118, Stockwell-street, Glasgow.

ISLEWORTH.—The Odeon Cinema Circuit, Cornhill House, Bennett's Hill, Birmingham, are to accept the tender of Messrs. Walter Lawrence & Son, Ltd., 31, Sun-street, E.C.2, for the cinema, with seating for 1,800 persons, seven shops, etc., proposed at London-road. Plans are by Mr. George Coles, F.R.I.B.A., 40, Craven-street, Strand, W.C.2.

KENTON (MIDDLESEX).—The contract for the Odeon Cinema, with five shops, etc., in Kenton-road, has been placed with Messrs. James Watt (Catford), Ltd., 1, Central-parade, S.E.6. Plans are by Mr. George Coles, F.R.I.B.A., 40, Craven-street, Strand, W.C.2, on behalf of Odeon (Kenton), Ltd., Cornhill House, Bennett's Hill, Birmingham.

MERIDEN.—Plans have been approved by the R.D.C. for extensions to the Cameo Cinema, Maxstoke-lane, Coleshill, for J. Wynne & Co.

SHELF (YORKS).—Plans have been approved by the R.D.C. for the conversion of Grove Mills into a cinema.

SOUTHEND-ON-SEA.—Further contracts for the proposed "Ritz" Cinema have been placed as follows:—steelwork, the London and Wales Steel Construction Co., Ltd., 4, Greville-street, E.C.1; asphalt, the Ragusa Asphalte Paving Co., Ltd., 25, Oxford-street, W.1; and heating and ventilating installation, Messrs. Chase & Co., Ltd., 4, Halkin-place, S.W.1. The architect is Mr. Robert Cromie, F.R.I.B.A., 35, Baker-street, W.1. The general contractors are Messrs. E. D. Winn & Co., Ltd.

SUNDERLAND.—The contractor for a new cinema and five shops at Fulwell, Sunderland, which is estimated to cost £17,000, is Mr. W. Rutherford, Sea-road, Fulwell, Sunderland. Plans are by Messrs. P. L. Browne & Son, Pearl Buildings, Newcastle-upon-Tyne.

TYNEMOUTH.—Mr. G. F. Hill, of Marsden-road, Cleadon, South Shields, has bought the Wesleyan Chapel, Front-street, Tynemouth, for conversion into a cinema for 800 people. Plans are before the T.C. The architect is Mr. Edwin M. Lawson, 19, Ridley-place, Newcastle-on-Tyne.

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### Institute of Fuel: Annual Dinner.

The Council of the Institute of Fuel announces that H.R.H. Prince George has been pleased to accept the invitation of Sir Harry McGowan, K.B.E. (president-elect of the Institute) to be present at the annual dinner of the Institute, to be held at the Connaught Rooms, Great Queen-street, W.C.2, on Monday, November 12. Prince George will propose the toast of the Institute. The Melchett medal will also be presented to Dr. Bergius immediately after the dinner.

# TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Government Departments.*

**Aberdeen.**—Alterations, etc., at Walker-road school, for the T.C. Mr. Wm. Mackie, City Architect:—

*Plaster—*
*Jas. Scott & Sons, Ltd., Aberdeen ..... £2,650 0 0
*Reinforced concrete—*
*Clark & Chapman, Aberdeen ..... 1,976 11 8

**Ashby-de-la-Zouch.**—28 houses on Burton-road site, for the U.D.C.:—

‡T. Barker & Sons, Loughborough ..... £1,794

**Ashford (Kent).**—Convenience at the Shrubbery, Hythe-road, for the U.D.C. Mr. A. F. Webster, engineer, 5, North-street:—

*W. Shippam, Ashford ..... £817

**Auchtermuchty.**—12 houses, for the T.C.:—

*Mason—*
*D. Nairn & Son, Ladybank ... £1,657 7 1½
*Plumber—*
*J. White, ..... 432 13 5
*Plaster and concrete—*
*D. T. Smith, Leven ..... 243 4 5
*Slater—*
*Wm. Currie, Kirkcaldy ..... 274 16 5

**Ballinasloe.**—60 houses, for the U.D.C.:—

*Ennis Bros., Ltd., Mullingar ..... £17,770

**Bangor (Co. Down).**—New golf house, for Bangor Golf Club. Mr. W. Stevenson, architect, Belfast:—

*Cairns Bros., Ltd., Belfast.

**Barnard Castle.**—Eight houses at Middleton-on-Teesdale, for the R.D.C.:—

*H. W. Scott, Barnard Castle ... £2,654 5 9

**Belfast.**—Rebuilding of portion "Grand Central" hotel. Messrs. Samuel Stevenson & Sons, architects:—

*J. & R. Thompson, Ltd., Belfast.

**Belfast.**—Rebuilding of hotel on site of old "Metropole" hotel:—

*Frazer Bros., Belfast.

**Belfast.**—Public elementary school in North Howard-street, for the E.C. Mr. R. S. Wilshere, F.R.I.B.A., architect:—

*J. Carson & Sons, Belfast ..... £18,649

**Belfast.**—Reconditioning of Springfield elementary school, for the E.C. Mr. R. S. Wilshere, F.R.I.B.A., architect:—

*J. Carson & Sons, Belfast ..... £5,555

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**Berwick-on-Tweed.**—Sawmill, for Messrs. E. Allen, Ltd. Messrs. Marshall & Tweedy, architects, Mervyn House, Pilgrim-street, Newcastle:—

*J. R. Rutherford & Son, Jesmond-road, Newcastle.

**Blackburn.**—52 houses in Brother-street, for the T.C. Mr. W. Pickstone, Borough Engineer:—

*J. Gerrard & Sons, Ltd., Manchester.

**Blackpool.**—Erection of a hotel at Bispham. Mr. Robert Atkinson, F.R.I.B.A., architect, 126, Wigmore-street, London, W.1:—

*Sir Lindsay Parkinson, Ltd., Blackpool. (Estimated cost £300,000.)
Sanitary ware—*George Jennings (Lambeth), Ltd., London, W.1.

**Bournemouth.**—Rebuilding the East Beach Café, for the T.C.:—

‡G. Shears & Sons ..... £13,754
(In lieu of previous tender.)

**Bradford.**—Store premises, for Messrs. Marks & Spencer, Ltd., Michael House, 45, Baker-street, London, W.1. Messrs. Norman Jones & Rigby, architects, Williams Deacons Bank-chambers, 271, Lord-street, Southport:—

*Bovis, Ltd., London, W.1.

**Bradford.**—Work at schools, for the E.C.:—

Alterations to Green-lane cooking depot—
*T. Obank & Sons, Ltd. ..... £406 2 2
Alterations to conveniences, Great Horton primary school—
*L. & W. Morrell ..... 270 10 8
Alterations to conveniences, Marshfield school—
‡L. & W. Morrell ..... 561 12 11

**Bromsgrove.**—Factory in Worcester-road, for the Bromsgrove Mineral Water Co., Worcester-road. Mr. George C. Gadd, L.R.I.B.A., architect, Town Hall-chambers:—

*J. & A. Brazier & Co., Ltd., Bromsgrove.

**Burnley.**—Multiple stores, for Marks and Spencer, Ltd., 45, Baker-street, London, W.C.1. Messrs. Norman Jones & Rigby, architects, Williams Deacons Bank-chambers, 271, Lord-street, Southport:—

*Bovis, Ltd., London, W.1.

**Carlisle.**—Alterations to premises and properties in Annetwell-street, for the T.C. Mr. Percy Dalton, A.R.I.B.A., Borough Surveyor:—

*Kerr & Sons, Carlisle ..... £707 4 5

**Carlisle.**—Laying a duplicate pipe line from Castlecarrock to Cairn Bridge, for the T.C. Mr. P. Dalton, City Engineer, 18, Fisher-street:—

*D. Thomson & Sons, Ltd., Carlisle £23,448

**Carrickfergus.**—Adaptation of old courthouse building as town hall and offices, for the U.D.C.:—

*W. Logan & Sons, Ltd., Belfast ..... £8,740

**Castlebar.**—Sun balconies at county hospital, for the Mayo County Board of Health:—

*Kennedy, Castlebar ..... £2,100

**Chesterfield.**—Mortuary adjoining the Staveley cemetery chapel, for the Staveley Parochial Cemetery Committee of the R.D.C. Messrs. Houfton & Kington, architects, Market-place:—

*Cross & Sons, Staveley, Chesterfield ... £432

**Daventry.**—18 houses at Flore, 33 houses, Wedonbeck, 6 houses at Staverton and footpaths, for the R.D.C.:—

*Sabin & Young, Walsall ..... £18,288 0 10
(In lieu of tender withdrawn.)

**Depwade.**—Houses, for the R.D.C.:—

46 houses at various sites—
*W. Tickner, Norwich ..... £13,644
Eight on two sites—
*Edward Baldwin, Woodton ..... 2,392

**Dewsbury.**—Alterations and additions to the central premises, drug dept., for the Dewsbury Pioneer Industrial Society, Ltd.:—

*J. Curtis & Son, Ltd.

**¶Dhibban.**—New cantonment, for H.M. Air Ministry:—

Humphreys, Ltd., 187, Knightsbridge, S.W.7.

**Dolgelley.**—Additions to the boys' school, for the Merioneth E.C. Mr. Norman L. Jones, County Architect:—

*W. F. Humphreys, Ltd., Ruabon ..... £4,327

**Doncaster.**—Additional day rooms at the Poor Law Institution:—

*Hemsworth Brothers, Doncaster £879 5 1

**Drumlithie.**—Construction of bridges at Gyratesmyre, Drumlithie, and Whitefields, Arbuthnott, for the Kincardine C.C.:—

*W. J. Anderson, Aberdeen.

**Dundee.**—Two bronze window fronts and other work, for the T.C.:—

*Crittall Manufacturing Co., Ltd., Glasgow ..... £237 19 6

**Galway.**—Nurses' home, for the County Board of Health. Mr. T. J. Cullen, architect, Dublin :—

| | |
|---|---|
| T. O'Higgins, Galway | £34,710 13 4 |
| E. Stone & Sons, Dublin | 33,500 0 0 |
| J. Flynn, Dublin | 32,594 14 0 |
| *James Beckett, Ringsend | 32,384 0 0 |

**Glendale.**—Six houses, for the R.D.C. :—

*J. Tully & Co., Seahouses ..... £1,875

**Greenock.**—Three-storied ex-Service men's club at Inverkip-street. Mr. Frank Petrie, architect, Library-buildings. Messrs. Woodrow & Thomson, measurers, 2, Hamilton-street :—

*Excavation, brick and mason*—*R. Gilchrist & Sons, Ltd., Glasgow.
*Joinery, carpentry and ironmongery*—*J. Preston & Sons, Greenock.
*Steel constructional*—*Fleming Brothers, Glasgow.
*Plumber*—*J. Austin, Greenock.
*Slater*—*Chas. Robertson & Son, Greenock.
*Plaster*—*T. Dunn, Greenock.
*Glazier*—*J Graham, Greenock.
*Electrical*—*J. Willas, Port Glasgow.
*Heating*—*W. Kerr, Greenock.

**Halifax.**—Demolition of existing shops and offices and erection of new banking premises at Waterhouse-street, for the Yorkshire Penny Bank, Ltd., Infirmary-street, Leeds. Mr. Medley, Bank Staff Architect, Leeds :—

*Wm. Nicholson & Son (Leeds), Ltd.

**Hawarden.**—Painting Council houses at Penyffordd and Abermorddn, for the R.D.C. Mr. G. J. Reidford, surveyor :—

*S. Jackson, Shotton, near Chester ... £356

**Hebburn-on-Tyne.**—Painting 160 Council houses, for the U.D.C. :—

*T. E. Fisher, Low Fell ..... £478 2 6

**Hemsworth.**—Two reinforced concrete reservoirs at Castle Syke-hill, for the R.D.C. :—

*Beedon, Ltd., Rotherham ..... £2,066 19 3

**Henstead.**—Four houses at Rockland St. Mary, for the R.D.C. :—

*C. Smith, Costessey ..... £1,092

**Hertford.**—Water supply for the parishes of Aston, Benington, Bengeo Rural, Sacombe, Stapleford, Walkern and Watton, for the R.D.C. :—

| | |
|---|---|
| Daniel T. Jackson, Ltd. | £44,242 14 10 |
| John Shelbourne & Co., Ltd. | 40,475 17 6 |
| F. Hitch & Co. | 40,350 0 0 |
| Hadsphaltic Construction Co. | 39,963 12 8 |
| Hayes (Stockport), Ltd. | 39,914 11 2 |
| W. & C. French, Ltd. | 39,356 0 0 |
| Sir Lindsay Parkinson & Co., Ltd. | 38,793 7 9 |
| J. L. Eve Construction Co., Ltd. | 38,719 15 2 |
| George Roberts | 34,792 12 8 |
| David Thompson & Sons, Ltd. | 34,143 19 1 |
| Hodsons, Ltd. | 33,958 0 0 |
| Wm. Wilson & Co. (Newcastle), Ltd. | 33,775 10 9 |
| George Riley & Co. (contractors), Ltd. | 33,235 2 8 |
| John Mowlem & Co., Ltd. | 32,928 13 6 |
| Charles Ball | 32,897 8 1 |
| William F. Rees, Ltd. | 32,619 11 6 |
| Dare, Pettigrew & Co., Ltd. | 32,400 0 0 |
| J. H. Grange & Son (contractors), Ltd. | 32,259 17 10 |
| C. V. Buchan & Co., Ltd. | 31,848 6 7 |
| Adam, Eastwood & Sons, Ltd. | 31,490 0 0 |
| F. R. Hipperson & Son, Ltd. | 31,000 0 0 |
| The Clay Cross Co., Ltd. | 29,766 5 11 |
| J. L. Rodger & Sons, Ltd. | 29,133 14 6 |
| *Squires & Sons, Ltd. | 28,839 13 0 |
| J. B. Edwards & Co. (Whyteleafe), Ltd. | 27,197 13 10 |

**Leeds.**—Alterations and additions at the Park-row branch of banking premises, for Messrs. Martin's Bank, Ltd. Messrs. Kitson, Parish, Ledgard & Pyman, architects, Lloyds Bank-chambers, Vicar-lane, Leeds :—

*Armitage & Hodgson, Ltd.

**Liverpool.**—Licensed premises at the corner of Field-lane and continuation of Hatton Hill-lane, Litherland, for Messrs. Peter Walker & Sons (Warrington and Burton), Ltd., 105, Duke-street. Messrs. H. E. Davies & Son, architects, Wellington-buildings, The Strand :—

*Parker Bros. (Waterloo), Ltd., Liverpool. (Estimated cost £10,000.)

**¶London.**—The following works contracts have been placed by the War Office during the week ended September 13 :—

Chatham—plastering walls—Speechley & Smith, Richmond, Surrey.
Shoeburyness—dining-room block—J. B. Edwards & Co. (Whyteleafe), Ltd., London, W.
Scarborough—road repairs—Constable Hart & Co., Ltd., Sunderland.
Pontefract—erection of miniature rifle range—J. W. Maw & Sons, York.
Strensall—artificers' work—T. Feather, Bradford.
Woolwich—alterations to barracks, etc., and repairs to stable—E. J. Logan, London, W.C.
Bordon—regimental institute—J. B. Edwards & Co. (Whyteleafe), Ltd., London, W.
Perham Down—barrack accommodation—Henry Boot & Sons, Ltd., London, S.W.
Deptford—periodical services—Fields, Ltd., Reading.
Hounslow—artificers' work—J. B. Edwards & Co. (Whyteleafe), Ltd., London, W.

**¶London.**—Tenders accepted by H.M.O.W. for the week ended September 13 :—

Soft soap—The Hull Oil Manufacturing Co., Ltd., Stoneferry, Hull.
Post Office Stores, Fordrough-lane, Birmingham—erection of block—Parsons and Morris, Ltd., 133, Belgrave-road, Edgbaston, Birmingham.
Tables, folding—Duncan Tucker (Tottenham), Ltd., Lawrence-road, South Tottenham, N.15.
Turpentine, genuine—W. Butler & Co. (Bristol), Ltd., St. Philips, Bristol.
Turpentine—substitute—The Anglo-American Oil Co., Ltd., Alexandra House, Queen-square, W.C.1.
Bronze poster frames—G. Johnson Bros., 69, Old-Street, E.C.1.
Pontefract Employment exchange—erection—F. Shepherd & Son, Ltd., Blue Bridge-lane, York.
Postmen's lockers—Constructors, Ltd., Nickel-works, Tyburn-road, Erdington, Birmingham.
Harrogate Sorting Office Garage—erection—W. Birch & Sons, Ltd., Spen-lane, Yorks.
Nottingham—maintenance contract—W. Crane, Ltd., 80, Forest-road, Nottingham.
Sheffield—maintenance contract—T. Wilkinson & Sons (Builders), Ltd., Olive Grove Works, Mid-hill-road, Sheffield, 2.
West Weybridge Veterinary Laboratory—extension of small animal house and of the administration block—T. Swayne & Son, Ltd., Stoke-road, Guildford.

**London.**—Erection of Victoria-road sub-station building, for the Stoke Newington B.C. :—

*Stapleton & Sons, Ltd. ..... £949

**Louth.**—50 houses on the Brackenborough-road site, for the T.C. Mr. G. H. Allison, Borough Surveyor :—

*F. Houlton & Co., Nottingham ..... £11,732

**Macclesfield.**—Rebuilding "Travellers Rest" public-house, Cross-street and Coronation-street, for Messrs. Bell & Co., Ltd., Hempshaw-lane brewery, Stockport :—

*G. Roylance & Co., Macclesfield.

**Manchester.**—Erection of Knutsford water tower, for the Waterworks Committee. Mr. W. F. H. Creber, Chief Engineer :—

*Christiani & Neilson, Ltd., London, S.W.1.

**Manchester.**—Clearing site and excavating for proposed rest home and garage at Haweswater, for the Civic Advisory Committee. Mr. W. Ellerton, architect, 80, Mosley-street :—

*J. Hine & Son, Stretford.

**Newcastle-on-Tyne.**—Additional story to the Dex Garage, New Bridge-street. Messrs. Hetherington & Wilson, architects, County-chambers, Westgate-road, Newcastle :—

*Stanley Miller, Ltd., 17, North-street, Newcastle.


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**Newcastle-on-Tyne.**—412 new houses, for the T.C. Mr. R. G. Roberts, Housing Architect, 18, Cloth-market :—

| | |
|---|---|
| 92 three-roomed and 98 four-roomed houses—*W. D. Allison, Whitburn, South Shields | £55,767 |
| 81 four-roomed and 89 three-roomed houses—*G. Bailey, Ltd., King-street, South Shields | 49,297 |
| 40 two-roomed bungalows—*A. Anderson, Sutton-street, Newcastle | 8,720 |
| 4 three-roomed and 8 four-roomed flats—*G. Bailey, Ltd., South Shields | 3,333 |

**Newcastle-on-Tyne.**—Large garage in Rosebery-crescent. Mr. A. K. Tasker, architect, Trinity-buildings, New Bridge-street :—

*J. R. Rutherford & Sons, Minories Joinery Works, Jesmond, Newcastle.

**Newcastle-on-Tyne.**—Latrines at Shieldfield Council school, for the T.C. :—

*Thomas Curry & Son, Meldon-street, Newcastle ..... £299

**Newry.**—Alterations to the Union Fever Hospital and Infirmary and building of a nurses' home, for the Guardians :—

*William Dowling, Ltd., Cromwell-road, Belfast ..... £23,793

**Nottingham.**—Extensions of Lenton Hall Students' Hostel, for the Council of the Nottingham University. Messrs. W. B. Starr & Hall, architects, 12, Victoria-street :—

*J. Cawley, Nottingham.

**Oswestry.**—Reinforced concrete roof to reservoir at Mardy, for the R.D.C. Mr. C. B. Barnes, engineer :—

‡W. F. Humphreys, Ltd., Acrefair, near Ruabon ..... £747

**Oswestry.**—10 houses at Weston Rhyn with drains, fences, paths, etc., for the R.D.C. Mr. C. B. Barnes, engineer :—

‡W. O. Jones ..... £2,900

**Perth.**—Additions and alterations to the municipal buildings, for the T.C. :—

*Demolition*—*P. Graham & Sons, 21, Wilson-street, Craigie, Perth.
*Joiner work*—*J. Johnston, Priory-place, Craigie, Perth.
*Plumber work*—*Alex. McLeish & Sons, 15, Mill-street, Perth.

**Pontardawe.**—Six houses and other miscellaneous work at Pontygroes site, Gwaun-cae-Gurwen, and four tenements at Ynisydarren, Ystalyfera, for the R.D.C. Mr. E. D. Jones, F.R.I.B.A., architect to the Council :—

| | |
|---|---|
| T. J. Williams, Cwmllynfell' | £2,568 8 9 |
| St. Rees & Co., Ltd., Port Talbot | 2,547 9 9 |
| Wms. Jones & Evans, Gwaun-cae-Gurwen | 2,379 15 0 |
| David Davies, Alltwen, Pontardawe | 2,341 8 0 |
| John Morgan, Neath | 2,304 16 8 |
| *Thomas Bros., Pontardawe | 2,099 0 0 |

**Portsmouth.**—Swimming bath at Hilsea, for the City Council :—

*Bolton & Lakin, Ltd. ..... £26,285 9 7

**Rawtenstall.**—32 houses, for the T.C. Borough Surveyor :—

*Ashworth & Hobson, 1, Haworth-avenue, Rawtenstall, Rossendale.

**Scarborough.**—Reconstruction of 32, St. Nicholas-street, for branch offices for the Halifax Building Society, Commercial-street, Halifax. Messrs. Tugwell, Jones & Rickaby, F.R.I.B.A., architects, 102, Westborough :—

*F. W. Plaxton, Scarborough.

**Sheringham.**—Conveniences in the High-street, for the U.D.C. Mr. F. Hall Smith, architect, engineer and surveyor :—

| | |
|---|---|
| R. W. Anderson, Sheringham | £938 |
| Childs & Spinks, Cromer | 868 |
| A. G. Brown, West Runton | 845 |
| *J. T. W. Blyth & Sons, Sheringham | 838 |

**Skegness.**—Erection of the "County" hotel, junction of North-parade and Castleton-road, for Messrs. George Bateman & Son, Ltd., Salem Bridge brewery, Wainfleet. Messrs. John Wills & Sons, architects, The Hall, Roman Bank :—

*W. Greetham & Sons, Drummond-road, Skegness.

**Southam.**—Four blocks of four non-parlour houses at Long Itchington, for the R.D.C. :—

*Bosworth & Wakeford, Ltd., Coventry ..... £5,517

**Stretford.**—Conversion of former stable premises at Empress-street depot, Old Trafford, into garages, messrooms, etc., for the T.C. Mr. E. Parker, Borough Surveyor :—

*A. Tomkins, Grecian-street, Lower Broughton.

**Sunderland.**—186 houses, for the T.C. Mr. T. P. Collinge, Borough Engineer :—

*T. D. Gibbons, Hendon-avenue, Sunderland ..... £53,940

**Sunderland.**—Eight special type five-roomed houses at Leechmere-road, for the T.C. :—

*W. Welford, Whitburn ..... £3,080

**Swadlincote.**—Eight houses in Bretby-road, Newhall, for the U.D.C. Mr. G. A. Taylor, Housing Architect :—

*Gough Bros. ..... £2,496

**Swansea.**—Groundsman's house on the Playingfield, Townhill, for the C.B. :—

*Rogers & Davies, Humphrey-street Yard, Swansea ..... £515

**Totnes.**—36 houses at Collapark, for the T.C. :—

*Coles & Squires.

**Ulverston.**—62 houses on the Devonshire-road housing estate, for the U.D.C. Mr. C. T. Hague, surveyor :—

†Baker & Foxter, Burnley.

**Walsall.**—69 non-parlour type houses on the Fullbrook site (section 2), for the T.C. Borough Surveyor :—

*L. G. Peace, Walsall ..... £18,216

**Wareham.**—Pulling down of an old building and the erection of sanitary conveniences, for the T.C. Mr. P. A. Byrne, A.I.A.A., Borough Architect and Surveyor :—

| | |
|---|---|
| A. Barfoot, Poole ..... | £570 0 |
| Hoare & Son, Bournemouth ..... | 503 0 |
| J. Moss & Son, Wareham ..... | 495 0 |
| K. Wilson, Parkestone ..... | 480 0 |
| *A. Marsh, Wareham ..... | 435 10 |

**Warrington.**—Silos, mill and warehouse at Howley, for the Manchester and District Farmers Co-operative Society, Ltd., 4, Chapel-walks, Manchester. Messrs. John Clarke & Sons, architects, 3, Romford-place, Liverpool :—

*Builders*—*Harry Fairclough.
*Steelwork*—*Pearson & Knowles Engineering Co., Ltd.
(Both of Warrington.)

**Weston-super-Mare.**—Houses on the Bournville Estate, for the U.D.C. :—

12 parlour and 18 non-parlour type—
*Read, Ltd., Barnet.

20 non-parlour type—
*The Building & Public Works Construction Co., Ltd., Swindon.

56 non-parlour type—
*Scaley & Gibbs, Weston-super-Mare.

**Wirksworth.**—22 3-bedroom and 6 4-bedroom type stone-fronted houses on Gorsey Bank estate, for the U.D.C. Mr. A. Eric Parry, architect and surveyor :—

*Bowmer & Kirkland, Heage, near Derby ..... £9,267

**Wolverhampton.**—Hotel at Fallings-park, for Messrs. W. Butler & Co., Ltd., Springfield Brewery. Messrs. Lavender & Twentyman, F. & A.R.I.B.A., architects, Waterloo-road :—

*F. & E. V. Linford, Cannock.

**Woodlesford.**—Reconstruction of the "Midland" hotel, for Messrs. Bentley's Yorkshire Breweries, Ltd., Eshaldwell Brewery. Messrs. W. H. & A. Sugden, architects, Devonshire-buildings, North-street, Keighley :—

*A. Hanks, Oulton, near Leeds.


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